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THE MEDICAL JOURNAL OF AUSTRALIA

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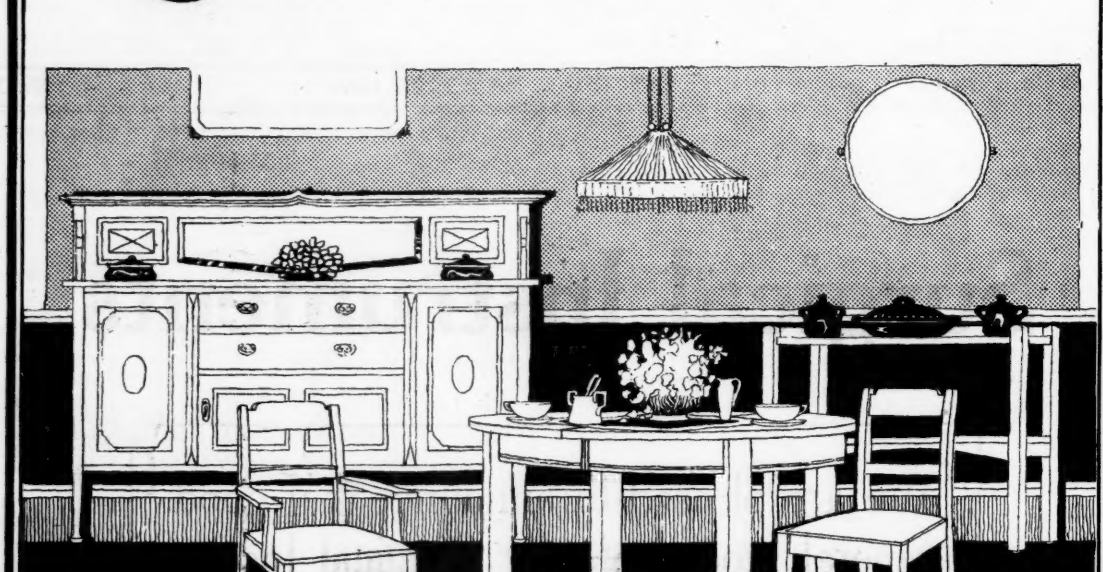

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An Address.[1]

BY G. H. HOGG, M.D., C.M. (EDINBURGH),
Retiring President of the Tasmanian Branch of the British Medical Association.

MY first duty is to offer you my thanks for the honour which you were kind enough to confer on me last year, an honour which, having been twice bestowed, may be taken to indicate, I presume, that you realize that, however great my shortcomings may be, my professional life has at any rate been marked by consistent loyalty to the traditions and interests of the profession of which I am but an insignificant member.

One of the dangers which has threatened and still threatens our profession in Tasmania, is not so much the evil-doing of the Government as the failure of some medical men to remember the debt which they owe to their profession. In failing to discharge their obligations in this respect they are doing a wrong which must eventually react on themselves and the public weal.

My next duty is to express my great obligations to the Honorary Secretary and Council of the Branch, who have done most of the work. To Dr. Brettingham-Moore this Branch owes a debt of gratitude for his unselfish labours; not the least of my regrets in quitting this chair is the severance of my official connexion with him.

Medical and hospital mal-administration, I regret to say, still continues to have a malign influence on the public health of this State and will continue to do so until a Government comes into power which has some rudimentary idea, not merely of present-day medicine, but also of the moral code of civilized nations. Since the days of Hippocrates, what has been considered as most essential in a physician, brought as he is into the most intimate relation with his patients, has been a high standard of morality. Nothing shows more clearly the necessity of making medical legislation a Federal affair and of instituting a governing body of the profession similar to the General Medical Council of Great Britain; I would urge the need of the Federal Committee taking action on such lines. Now, with your permission, I shall leave such questions which bring us in too close a contact with the foul odours of Tasmanian politics and pass into the purer atmosphere of medicine.

Ocular Manifestations of High Blood Pressure.

It is my intention to address you to-night on some clinical aspects of ophthalmology, which is one of the most interesting studies which our profession

[1] Delivered at the Annual Meeting of the Tasmanian Branch of the British Medical Association on February 3, 1923.

affords, firstly, because of the varied problems which it presents, involving questions not only of anatomy, physiology, pathology and mathematics, but also of other special branches of medicine, ranging from dentistry to gynæcology; secondly, and I think chiefly, because it is more fortunate than its sister branches in the fact that in its practice one can observe on more exact lines. With the methods of examination at his command, the ophthalmologist can see the changes which disease has wrought and can often view "the pathological process in actual progress."

It is to some of these pathological processes occurring in and after middle life that to-night I desire to draw your attention. The first of these is that which is commonly known as "high blood pressure."

Many patients after the age of forty to fifty years come to us or are sent to us by their physicians for the purpose of getting suitable glasses. They may complain simply of the ordinary symptoms of presbyopia, while others may be suffering from ache of eye or head. Of these, while some may simply require a suitable presbyopic correction, others may present more serious conditions.

I. A lady, aged fifty-eight years, came to me to have her glasses changed because of severe and frequent headaches. She also complained of pains in the back of the neck and inability to sew or read for any length of time. She was thin, pallid and weary looking and had been dosed with tonics and rich food to build up her strength.

Examination of her eyes revealed the appearances of a high blood pressure, which was found to be about 290 millimetres of mercury. Under treatment this gradually diminished to 190 millimetres, with almost complete disappearance of her symptoms.

II. A lady, aged sixty-four years, was sent to me to get stronger glasses for her failing sight. Examination revealed the macular picture of albuminuric retinitis and silver wire arteries; the blood pressure was 250 millimetres of mercury.

Under treatment improvement took place, notwithstanding the bad prognosis which had been given. A slight hemiplegia occurred three years after, but nine years later the patient was still alive, in comparatively good health, with a blood pressure varying from 180 to 200 millimetres.

III. A male, aged fifty-three years, complained of pains in the eyes, head and neck, eye weariness and attacks of giddiness. Examination of the fundus showed the appearances of high blood pressure, which was found to be 250 millimetres, and a large amount of albumin was found in the urine.

Treatment caused the disappearance of the headache and eyeache and of the albuminuria, as well as a distinct drop in the blood pressure.

IV. A lady, aged fifty-nine years, came to me with eye trouble. In addition to myopic astigmatism and degenerative chorioido-retinal changes a blood pressure of 220 millimetres was noted, which varied from time to time from 180 to 260 millimetres. She was treated more or less continuously for some years and, notwithstanding two attacks of hemiplegia, she is alive and in comparatively good health ten years later. The blood pressure, when last taken by me some months ago, was found to be 240 millimetres.

V. A lady, aged forty-five years, came for glasses, complaining of headache and occasional giddiness. Examination of her fundus made me suspect an increased blood pressure, which was found to be 180 millimetres. Some months afterward she had a sub-conjunctival hæmorrhage, which was repeated, although under treatment her blood pressure had fallen to 160 millimetres.

VI. A lady, aged eighty years, consulted me about her eyes. Examination revealed, in addition to myopic astigmatism, arterio-sclerotic changes in the fundus; the blood pressure was found to be 290 millimetres. Under treatment her blood pressure was kept down for a time, but eventually large retinal hæmorrhages occurred in the eye, which became blind. Four years after her first visit she is still alive and getting about, the blood pressure varying from 200 to 240 millimetres.

VII. A male, aged fifty-five years, consulted me for sub-conjunctival hæmorrhage. His retinal vessels showed a silver wire appearance and his blood pressure was 200 millimetres. Six years afterwards he was seen with retinal hæmorrhage, albuminuria and a blood pressure of 250 millimetres. He died within a year of renal disease.

VIII. A male, aged sixty years, was seen for repeated sub-conjunctival hæmorrhages; the fundus showed arterio-sclerotic changes. No albuminuria was present, the pulse was recorded as hard, but no record of pressure was made. He died two years afterwards of cirrhotic Bright's disease.

The symptoms of high blood pressure have been fully described by various writers. Headache is one of the commonest and on inquiry is often found to be worst in the morning and even during the night.

Some of my patients have told me that their practice was to keep a tablet of "Antipyrine" or "Aspirin" by their bedside, so that when their headache awakened them in the night or early morning, they could take one.

Many of my patients complain of pain and aching in the back of the neck; this symptom occurring in people over fifty is, in my experience, almost diagnostic of raised blood pressure.

Pain and throbbing at the back of the eyes is complained of by some and drives them from optician to optician to get their glasses changed.

Giddiness is not an uncommon symptom and patients have been sent to me in order to have their refraction examined, under the impression that some error therein was the cause of the giddiness. This giddiness is noticed by some patients only on change of position, on stooping, kneeling, rising from the horizontal to the vertical.

For a fuller description of the symptoms and ophthalmoscopic signs I would refer you to the text-books, as well as to the original papers of Marcus Gunn, Bardsley and others. Marcus Gunn, in his original paper read before the Ophthalmological Society in 1898, described the characteristic appearances of alteration in size, tortuosity, reflex, translucency, pressure on the blood vessels, œdema of the retina. These are now regarded as classical signs of arterial disease to be recognized by us all, even although we may not possess the clinical expertness of Bardsley, who believes that it is possible to gauge the actual height of the blood pressure by a careful examination of the blood vessels of the retina.

The question arises: "Do changes in the blood vessels of the retina necessarily indicate changes in the cerebral vesesls?"

Marcus Gunn was of the opinion that there was an intimate connexion between these ophthalmoscopic changes and later evidences of cerebral vascular disease.

Foster Moore stated—and his belief is shared by many clinicians—that there is a close relationship between the arteries of the brain and the retina.

Coats thinks that the ocular circulation must not be regarded as a mere expansion of the cerebral circulation and that the angio-sclerotic processes are irregular in their distribution, one region being affected without another. While disease of the retinal vessels is not necessarily a proof of disease of the cerebral vessels, it furnishes a presumption in its favour.

We know, moreover, that there may be definite disease of the systemic arteries without evidence of disease of the blood vesesls of the brain and *vice versa*.

A high pressure of the brachial artery does not necessarily mean a high blood pressure of the retinal vessels, nor as a sequence a grave risk of retinal or cerebral hæmorrhage. Whether the methods of Magitot and Bailliart, by which the blood pressure of the retinal vessels is estimated, will ever be adopted for clinical practice remains to be seen; not only in angio-sclerosis, but in albuminuric retinitis and glaucoma definite formulæ have been worked out by these observers.

Retinal hæmorrhage, embolism and thrombosis I do not propose to deal with, save to mention that at times it results from arterio-sclerosis, the hæmorrhages not being due so much to the high blood pressure itself as to degenerative changes in the vessel walls and perhaps in the blood. Albuminuric retinitis, with its typical macular picture, may be met with, associated with high blood pressure.

The Eye in Diabetes.

Diabetic retinitis, with or without retinal hæmorrhage, is occasionally seen and may be accompanied by arterio-sclerotic changes. Indeed, small multiple hæmorrhages may be the first indication to the practitioner of the presence of diabetes, as has happened from time to time in my own practice. In this disease, while cataract is a well-known occurrence, it is not so generally recognized that iritis and even conjunctivitis may be due to glycosuria. The iritis is usually insidious in character and accompanied by effusion, so that it is often overlooked. When the patient consults you, you may find a pupil more or less obscured by deposit and the iris bound down by adhesions. Conjunctivitis, of which I have recorded cases, is of rare occurrence. It yields rapidly to treatment of the general condition, although local treatment has little or no effect.

An amblyopia without apparent changes also occurs and may improve considerably as the sugar disappears from the urine.

From time to time chronic iritis, uveitis and *keratitis punctata* are seen in middle-aged people. Recently I have had two such under observation without any apparent cause except a high blood pressure, not that this can be assigned as the real cause, both being probably due to some toxæmia of unknown origin.

Professor Fuchs has recently pointed out how arterio-sclerosis of the small arteries of the optic nerve may cause an interference with the blood supply of the nerve fibres, with resultant atrophy, and how a thickening or even a calcification of the ophthalmic artery may cause a pressure and flattening of the optic nerve, so that nerve bundles become atrophied.

We meet also from time to time a certain number of cases of gradual diminution of vision in old people in which we can detect little or no change, except perhaps a slight pallor of the optic disc. In many of these the cause is probably, according to Fuchs, the presence of amyloid bodies, sometimes millions in number, in the optic tract, chiasm and posterior part of the nerve, which displace the fibres and so cause atrophy.

Glaucoma.

Glaucoma is, as we know, pre-eminently a disease of advancing years. To quote Priestly Smith, the frequency of glaucoma increases slowly at first, more rapidly in each decade until the sixtieth year; after seventy years its frequency diminishes.

To deal with the symptoms, signs and pathology of glaucoma, even perfunctorily, would require more time than is at my disposal, but I would like to emphasize the importance of ever bearing in mind the possibility of its presence in patients who consult us about their eyes.

The typical symptoms of an acute glaucoma are not likely to overlooked. It is the milder signs of a chronic glaucoma which may be missed. Failing vision in advancing age, without any apparent cause, should be carefully scrutinized in regard to the possibility of a slowly developing glaucoma. Does arterio-sclerosis play any part in the causation of glaucoma?

To this question Elliot replies emphatically: "No." Although I feel rather diffident in differing from such an acknowledged authority, I must say that I do not agree absolutely with his statement. I have been much impressed by a few patients who remained under my observation for some years. I quote one case as an example in which a slowly advancing glaucoma existing in a subject of arterio-sclerosis was kept in check for years by medical treatment, the patient eventually dying from the arterio-sclerosis.

IX. A male, aged fifty-one years, suffering from chronic glaucoma, was seen by me and two other oculists. The blood pressure was 200 millimetres of mercury and there were evidences of arterio-sclerotic changes. I advised him against operation and treated him by dieting, iodides and occasionally eserine drops. His vision gradually fell from $^6/_5$ to $^6/_9$ in one eye and $^6/_{12}$ in the other eye, the nasal field shrinking considerably, and he had several attacks of severe epistaxis. He died suddenly ten years after his first visit to me from some circulatory lesion, retaining good, useful vision until the last.

Cataract.

Perhaps the commonest of the serious eye diseases met with in elderly people is cataract. So much so, that it has long been regarded as a senile change. Indeed, in my student days, the teaching was that the cause of cataract lay in the cornification of the lens, which was a natural process as years went on, but became more marked in cataract.

The objection which, of course, immediately presented itself to such a view, was the fact that in only a small percentage of old people did cataract

occur. The view now held is that cataract is a disease of the lens resulting from chemical changes therein, but as to the cause of these chemical changes nothing is definitely known. Roemer believes it to be due to cyto-toxins affecting the lens cells.

Burdon-Cooper, who first discovered tyrosin in the senile cataractous lens, believes with Fraenkel and Grilli that there is an association between cataract and diseased kidney function. Noting the observation of Bruns in regard to the action of the sodium salts, he has suggested that it is advisable to limit the amount of salt in the diet. Greene believed that arterio-sclerosis exerted an influence in the development of lens opacities and von Michel thought that atheromatous changes of the carotid by interfering with the blood supply and normal metabolism caused cataract.

Strain of the accommodation caused by errors of refraction seems to play some predisposing part in causation and oblique astigmatism seems to be the most usual defect.

Burdon-Cooper lays great stress on these errors of refraction and is of opinion that: "If during the working decades of life important refractive errors were corrected, we should in time see a proportionately lessened incidence of one type of cataract with definite ætiology."

Syphilitic Affections of the Eyes.

Central chorioiditis is a condition met with after middle life. It is believed by some to be due to syphilis and arterio-sclerosis, but apparently is in many cases simply a senile change.

Syphilis affecting the eye in people of middle life is by no means uncommon. Many of the ocular paralyses are syphilitic in origin, as are some of the optic atrophies.

Irido-cyclitis and chorioido-retinitis are often due to the same cause. My experience has been that these conditions are often seen in middle-aged women in whom the original disease has never been recognized, or, if detected, has been treated imperfectly. In fact, the oculist is sometimes the first to diagnose the disease. A middle-aged women consulted me for a chronic irido-cyclitis; she had for some time been under treatment for severe headaches. Treatment with mercury and iodide not only improved the eye condition, but, to her greater satisfaction, cured her headache. Although syphilis is, as we know, potent in causing disease of the vessel walls and we might therefore reasonably expect the retinal vessels to be frequently affected, I have very seldom seen retinal arterio-sclerotic changes or hæmorrhage in syphilis. Haab, in describing the appearance of syphilitic end-arteritis of the retina, refers to it also as a rare disease.

Eye Disease of Gout.

Gout, which is rare in Tasmania, occasionally plays a part in the causation of eye disease. I have seen iritis and most obstinate scleritis in gouty subjects and we know that this disease may be an important factor in causing arterio-sclerotic changes. But gout is only one of the many toxic conditions which play a part, however insidiously and obscurely, in the production of arterio-sclerosis. It is these toxæmias against which we have to guard, if we wish to protect the organism from the degenerative changes of advancing years. Whether it be from the teeth, naso-pharyngeal or gastro-intestinal tract, auto-intoxication may show itself in some affection of the eye.

Conclusion.

In these somewhat disjointed notes I have not attempted to deal fully with any condition, nor have I considered the question of diagnosis, prognosis or treatment.

My intention has been to emphasize the importance of ophthalmology, not only *per se*, but in relation to general medicine.

It has long been the custom for the middle-aged, when their sight has begun to trouble them, to think that all that was necessary was to get a pair of spectacles from the optician—and in this respect the members of our profession are not free from fault. They too often regard presbyopia as something simple, not necessitating an oculist's advice.

The necessity for proper examination of the presbyopic eye cannot be too strongly urged; if this were carried out, not only could impaired vision be often improved, but in many cases, by timely interference on lines indicated by the results of the examination, the health of the patient might be benefited and the patient himself saved at times from impending doom.

BACILLARY DYSENTERY IN CHILDREN.[1]

By F. H. Beare, M.D., B.S. (Adelaide),
Mile End, South Australia.

It is now generally recognized that bacillary dysentery is a specific entity. Yet when the official "Year Book of the Commonwealth of Australia" is consulted, no entry for bacillary dysentery is found among the causes of death in the section dealing with vital statistics. Nevertheless, many individuals die from bacillary dysentery in the Commonwealth of Australia each year. It would seem that it has not yet become generally recognized that bacillary dysentery is common in Australia; otherwise, surely this disease would be included in such reports as are found in the State and Commonwealth Statistical Registers.

During the last two years (1921 and 1922) in which I have been engaged in investigating diarrhœal disease in children for the Gastro-Enteritis Research Committee of Adelaide, it has become more and more apparent that a considerable number of cases of diarrhœa among infants and children are really examples of bacillary dysentery.

In America it has long been recognized that the *Bacillus dysenteriæ* is the causative organism in certain varieties of diarrhœal disease in children, more especially those characterized by the passage of blood and mucus in the stools. Thus, Flexner[6] in 1903, working at the Rockefeller Institute, con-

[1] This work has been carried out for the Gastro-Enteritis Research Committee of the University of Adelaide.

ducted an investigation on the general and local occurrence of *Bacillus dysenteriæ* in the summer diarrhœa of children and summed up as follows:

> The type of *Bacillus dysenteriæ* which preponderated in the children is the so-called "Flexner-Harris" organism. The "Shiga" type of organism is exceptionally met with and occasionally both types are found in association. . . . The central fact brought out by this investigation is the frequent occurrence in the diarrhœal diseases of children of a specific micro-organism which hitherto has been held to be of specific pathogenic action in human beings and to be the cause of that form of dysentery among adults and also children which is characterized by necrotic and pesudo-membranous lesions of the intestine and marked infectiousness.

Many other observers in America, such as Wollstein,[23] Park, Collins and Goodwin,[17] [4] [10] have arrived at the same conclusion, *id est*, that the *Bacillus dysenteriæ* is to be found in diarrhœal stools containing blood and mucus.

In England and on the continent the *Bacillus dysenteriæ* does not seem to be thought of any great importance in the causation of diarrhœa in children. Still[21] suggests that: "Hitherto it cannot be said that any micro-organism of the many which have been described in recent years as causal agents in infantile diarrhœa has been proved to bear a specific relation to the disease."

As far as Australia is concerned, Litchfield and Hipsley in 1905, in Sydney, obtained Shiga bacilli in three cases of diarrhœa in children. In 1911 Forsyth,[9] of Melbourne, working on cases of infantile diarrhœa, found organisms "closely resembling" *Bacillus dysenteriæ* Flexner in 6% and *Bacillus dysenteriæ* Shiga in 8% of his cases. In a later publication, reporting an investigation on over three hundred cases of infantile diarrhœa, he states that he found Shiga-like or Flexner-like bacilli in 25% of cases. In 1914 Bradley,[2] in Sydney, found Flexner organisms in three out of thirty-one cases of gastro-enteritis he examined.

In 1921, Patterson and Williams,[18] of Melbourne, found that a large percentage of cases of diarrhœa, characterized by blood and mucus in the stools, contained *Bacillus dysenteriæ* Flexner. Five of the cases yielding positive results were in children and one was in a breast-fed baby; all passed stools containing blood and mucus.

Summarizing, it may be stated that:

1. In America, *Bacillus dysenteriæ* (chiefly Flexner) has for many years been recognized as being associated with diarrhœa in children, especially those passing blood and mucus in the stools.

2. In England, *Bacillus dysenteriæ* is not recognized as an important factor in the diarrhœa of children; but apparently the blood and mucus type is not very common.

3. In Australia from time to time *Bacillus dysenteriæ* has been isolated from the stools of children with diarrhœa.

The material on which this paper is based, has been obtained from patients admitted to the Adelaide Children's Hospital and the Babies' Hospital, Woodville. Every patient suffering from diarrhœa admitted to these hospitals has been investigated. This work has extended over the whole of 1921 and the first half of 1922.

Amongst two hundred and seven cases of diarrhœa thus recorded, seventy-eight, or 38%, were of the "blood and mucus" type and from the results in these latter cases the following paper has been compiled.

ÆTIOLOGY.

Season.

The majority of cases of bacillary dysentery (in children) occur during the summer months, but, nevertheless, cases are met with at all seasons of the year. On account of this seasonal incidence the term "summer diarrhœa" has come into use; but bacillary dysentery, one form of "diarrhœa," is not limited to the summer months. In this respect we are bound to agree with Davison,[5] who says: "The name 'summer diarrhœa' is particularly misleading. One might as well discuss 'winter cough,' as was done by Dobell[7] in 1872 and neglect to differentiate primary and secondary pneumonia from bronchitis."

During the course of this investigation the majority of cases have occurred in the summer; but cases have been seen to commence in the middle of winter.

Some authorities claim that the raised atmospheric temperature itself is the cause of "summer diarrhœa." Now, breast-fed children are exposed to the same temperature as artificially-fed children, but do not suffer to anything like the same extent from diarrhœal diseases as do artificially-fed children. Therefore, the increased atmospheric temperature of itself cannot cause diarrhœal disease or dysentery.

Age.

It would seem that the child of over twelve months of age is more liable to become infected with the dysentery bacillus than the infant. This is probably explained by the fact that breast feeding is naturally much more common among infants than among children of over twelve months of age. In the series studied by me the age incidence was as shown in Table I.. This age incidence is in accord with the findings of Davison[5] and other observers in the United States of America.

TABLE I.

Age at Onset.	Patients Passing Blood and Mucus.	All Patients with Diarrhœa.	Percentage of Patients Passing Blood and Mucus.
Birth to Three Months	6	59	10
Four Months to Six Months ..	17	48	37
Seven Months to Nine Months	16	34	48
Ten Months to Twelve Months	10	21	48
Over Twelve Months	29	45	64

Diet.

There is no doubt that diet plays a very important part in the ætiology of the condition. Breast-fed

babies, though not altogether exempt, are much less likely to become infected with the dysentery bacillus than partially breast-fed or artificially-fed children.

In the seventy-four infants with "dysentery" studied in this series, of whom records of feeding were available, only five were totally breast-fed, that is, about 7% of the series.

As regards the variety of artificial feeding, it would seem that it mattered little with what particular food the child was fed as far as the risk of a dysentery infection was concerned. In this respect in the past cows' milk has been thought to be very commonly the diet on which children developed diarrhœal diseases. On referring to Table II. it will be seen that twenty-four out of forty-six children under one year of age were receiving cows' milk in some form when they developed dysentery.

Again, from Table II. it will be seen that on an average during the first three months of life 4% of children have cows' milk; similarly during the second three months 8%, during the third three months 16% and during the fourth three months 27%. Therefore, while it would seem that a dietary including cows' milk is not *per se* the cause of dysentery, as it is a suitable vehicle for food infection, a large percentage, larger than the expected percenttage (according to "A Dietetic Survey of Infants"[1]) of children developing dysentery are fed on cows' milk.

As to the influence of diet on the onset of dysentery, it must be noted that diarrhœa without blood and mucus may later be attended with the passage of blood and mucus and yield the *Bacillus dysenteriæ*, indicating in reality a case of bacillary dysentery, as will be shown later. The influence of faulty feeding on the incidence of many cases of non-dysenteric diarrhœa is acknowledged by all and so faulty feeding prepares the way for the reception and growth of the bacillus of dysentery and in a certain number of cases becomes a potent factor in causing the onset of dysentery.

BACTERIOLOGY.

The dysentery bacillus was first described by Shiga in 1898 (*Bacillus dysenteriæ* Shiga). Flexner almost immediately afterwards described the variety of dysentery organism that now bears his name. Since that time many different forms have been described and many classifications have been suggested.

For practical purposes, the dysentery organism may be described as a short, non-motile, Gram-negative bacillus. The organism may occur as three main varieties:

(*i.*) *Bacillus dysenteriæ* Flexner, a non-lactose-fermenting organism that produces acid only in mannite and glucose broth.

(*ii.*) *Bacillus dysenteriæ* Shiga, a non-lactose-fermenting organism that produces no change in mannite broth and acid only in glucose broth.

(*iii.*) *Bacillus dysenteriæ* Sonne, a late lactose-fermenting organism that produces acid only in glucose and mannite broth.

Sonne,[20] in Denmark, isolated the organism that bears his name. Thjøtta,[22] in Norway, has found a similar organism fairly frequently in cases of dysentery. This organism, unlike *Bacillus dysenteriæ* Flexner, ferments lactose and saccharose in

TABLE II..

Age.	Incidence.	Totally Breast-Fed.	Breast Supplemented (No Cows' Milk).	Breast Supplemented (+ Cows' Milk).	Totally Artificially-Fed (+ Cows' Milk).	Totally Artificially-Fed (No Cows' Milk).	Total Cases.
Birth to Three Months	Dysentery	4	0	0	1	0	5
	Percentage of All Cases	80%	0%	0%	20%	0%	—
	Percentage of Children	83%	1%	2%	3%	12%	—
Four to Six Months	Dysentery	1	0	1	5	9	16
	Percentage of All Cases	6%	0%	6%	31%	56%	—
	Percentage of Children	66%	2%	8%	6%	18%	—
Seven to Nine Months	Dysentery	1	2	2	2	8	15
	Percentage of All Cases	7%	13%	13%	13%	53%	—
	Percentage of Children	46%	5%	21%	11%	18%	—
Ten to Twelve Months	Dysentery	0	1	1	5	3	10
	Percentage of All Cases	0%	10%	10%	50%	30%	—
	Percentage of Children	21%	9%	26%	18%	24%	—
Over Twelve Months	Dysentery	0	1	1	24	2	28
	Percentage of All Cases	0%	4%	4%	85%	7%	—
	Percentage of Children	—	—	—	—	—	—

"Dysentery" is taken to mean the condition associated with the passage of blood and mucus.

"Percentage of all cases" means the proportion of children with diarrhœa who are suffering from dysentery.

"Percentage of children" means proportion of all children who are expected to be fed in a certain way, as worked out from "A Dietetic Survey of Infants."[1]

from three to six days. Emulsions of this organism are only feebly agglutinated by Flexner serum, while Sonne serum fails to agglutinate emulsions of Flexner bacillus.

Organisms resembling Sonne's bacillus have from time to time been isolated in Australia from cases of diarrhœa, usually of the "blood and mucus" type.

As far as Australia is concerned, no case of true Shiga dysentery contracted in this country has been reported. Organisms resembling the bacillus of Sonne[20] have been isolated in Melbourne and in one case of the Adelaide series. From the Adelaide series, with the exception above, only the Flexner variety of organism has been isolated. The Shiga organism has not been isolated from any case in the Adelaide series.

Methods Adopted in This Investigation.

If possible, the whole soiled napkin was collected in a "billy-can" and carried to the laboratory for examination. A piece of mucus was taken from the stool and washed in saline solution; it was then spread on a MacConkey medium plate and incubated for twenty-four hours at 37° C.. The clear colonies were then picked off and put into lactose broth to confirm their reaction to lactose. If the latter was satisfactory at the end of the next twenty-four hours, the motility was tested and the reaction in glucose, mannite and saccharose ascertained after twenty-four hours' further incubation in broth solutions of these substances.

If all the above reactions conformed to those of the Flexner dysentery bacillus, an agar slope culture was made and at the end of twenty-four hours this was emulsified and then tested against Commonwealth Flexner and *Y* agglutination sera. If any organism conforming to the known cultural and morphological characteristics of Flexner organisms was agglutinated to at least one-third of the end titre of the Commonwealth serum, it was regarded as *Bacillus dysenteriæ* Flexner.

No attempt was made to classify the organisms isolated in the series into the various serological races of Flexner's dysentery organisms. In explanation, it may be stated that Flexner's organism may belong to one of five main serological races: *V*, *W*, *X*, *Y* and *Z*. Further, that organisms designated as "Hiss and Russell," *Y* and "Harris" *et cetera* are included in the above serological subdivision, which is more accurate than any subdivision based on cultural and chemical reactions.

The practical application of the above results is seen in the use of anti-dysenteric serum as a therapeutic agent. It is generally agreed that for the maximum benefit to be obtained from the use of anti-dysenteric serum this agent must be given early in the course of the disease. As the identification of the particular race of Flexner bacillus, that is, the infecting agent in any given case, takes some days, it is not practicable to carry out this investigation before the use of the serum. Therefore, a serum polyvalent in the sense that it is prepared by using all five races of Flexner bacillus, is necessary. Such a serum is supplied by the Commonwealth Serum Laboratories at Royal Park.

It has been shown on various occasions that in any case of clinical bacillary dysentery the probability of obtaining the dysentery organism from the stools decreases with the time for which the case has been in progress. Thus, Martin and Williams[15] in 1918 found that in their series of clinical bacillary dysentery the percentage of cases at various periods from the onset giving *Bacillus dysenteriæ* from the stools was as follows: In cases of one to three days' duration it was found in 68%, from five to ten days' duration 17%, from eleven to fifteen days' duration 6.3%, from sixteen to twenty days' duration 3.1%, from twenty-one to thirty days' duration 1.5%, from thirty-one to forty days' duration 0.3% and from forty-one to fifty days' duration it was found in 0.3%.

Seligman, working in Austria, obtained very similar results.

In the Adelaide series the findings were as follows:

TABLE III..

Days of Illness.	Stools.		
	Number Examined.	Number Containing Flexner Bacillus.	Percentage Containing Flexner Bacillus.
Up to Four Days	11	9	82%
Five to Eight Days ..	38	14	37%
Nine to Twelve Days ..	21	7	33%
Thirteen to Sixteen Days	15	2	13%
Seventeen to Twenty Days	7	1	14%
Twenty-One to Twenty-Four Days	15	2	13%
Twenty-Five to Twenty-Eight Days	6	0	0%
Over Twenty-Eight Days (some as late as ninety days)	37	0	0%

In the above series any case, either with a history of passing blood and mucus in the stools or if this was actually observed, was regarded as bacillary dysentery unless proved to be otherwise. When the examination resulted in the failure to discover Flexner bacilli in successive stools, while the bacilli were found in a subsequent series, the former was disregarded and not included in the above series. The above one hundred and fifty stools represent sixty-nine conforming to the above conditions. From the above table the assumption is justified that, had all the patients been examined within four days of the onset of the illness, the stools of the majority would have been found to contain *Bacilli dysenteriæ* Flexner.

During the investigation stools from patients with every variety of diarrhœa, as well as from normal children in hospital for some non-diarrhœal condition, were examined. The results were as follows:

TABLE IV..

Condition.	Patients.	Stools.			
		Number Examined.	Bacillus Flexner.	Bacillus Flexner Agglutinable.	Bacillus Sonne.
Clinical Dysentery ..	69	160	25	2	1
Other Diarrhœal States	95	169	1	0	0
Normal Children	53	75	0	0	0

Therefore it is seen that apart from clinical dysentery, *id est*, blood and mucus in the stools, *Bacillus dysenteriæ* Flexner practically does not occur in the motions of children.

As a result of this work there is every justification for the statement that the majority of patients passing blood and mucus in the stools are suffering from bacillary dysentery and should be treated on this assumption until it is proved to be otherwise.

Source of the Infection.

Provided that it is accepted that *Bacillus dysenteriæ* is the main infecting organism in diarrhœa of the blood and mucus type in South Australia, the chief problem is to determine the source of the infection.

It would seem that the main reservoir of dysenteric organisms must be either the horse or the human being, the latter being a "carrier."

As far as I am aware, it has never been shown that the horse may become infected by the organism of bacillary dysentery or that it is a carrier of dysentery. With a view of testing the latter possibility I examined bacteriologically the large intestines of some twenty-five horses slain at the Adelaide Zoological Gardens. Although several non-lactose-fermenting bacilli were isolated from these specimens, no recognized pathogenic forms were obtained. Therefore I am justified in supposing that the horse is not the reservoir from which the dysentery bacillus emanates.

Hence man must be the most probable "carrier" and there is, indeed, a good deal of evidence to show that the carrier state of bacillary dysentery may exist in man.

There are, therefore, two sources from which infection with dysentery may arise: (*a*) another case, (*b*) a "carrier," *id est*, a person who harbours *Bacilli dysenteriæ* while having no signs of dysentery himself.

There are some authorities who regard the carrier state in dysentery to be quite unusual. Thus Dew and Fairley[6] state that "carriers in bacillary dysentery are very unusual."

Examinations made in England during the great war showed that many acute cases of bacillary dysentery become chronic and the patients retained the bacillus of dysentery in their stools for a long time. Most of these patients had diarrhœa, but in some apparently quite convalescent patients the bacilli were found for a certain length of time.

During the investigations on the cases of this series inquiries were made for the possible existence of another case from which the particular individual might have become infected. It was found that thirty-two out of forty-nine patients (*id est*, 63%) of which particulars were obtained, had another person with diarrhœa in association with them. From this it may be supposed that case to case infection is not uncommon.

Several examples of collections of patients from the same neighbourhood were met with in this series and in all of them the dates of the onset of illness were not simultaneous, but consecutive, so that a case to case infection was more probable than infection from a common source. The following family may be taken as an example of case to case infection, arising originally from a proved "carrier" (the father).

Mr. E. contracted bacillary dysentery on Gallipoli in 1915. He was in hospital at Malta for forty weeks and was then invalided to Australia and discharged from the Army as unfit. Soon after this he married. His wife contracted diarrhœa, with the passage of blood-stained motions. At the age of two years his child (in 1920) had "colitis" with blood-stained motions. Both he and his wife continued passing blood-stained stools during various attacks of diarrhœa. In 1922, twins aged three months both got diarrhœa (blood-stained stools) within a week of each other. One died and at the *post mortem* examination dysenteric ulceration of the colon was found. Just prior to the death of the child, a stool specimen from the father (who had not had diarrhœa for some three months) after a dose of magnesium sulphate, showed *Bacillus dysenteriæ* Flexner.

The following may be taken as examples of the grouping of cases:

Group I.—There were five members in the family, the father and mother and three children. The following is a *résumé* of the course of events:

On January 1, 1921, a baby across the narrow street was taken ill with diarrhœa and stayed there until January 12, 1921, on which day he was taken to hospital, where he died.

On January 25, 1921, Child 1 was taken ill with diarrhœa and died on January 27, 1921; on February 2, 1921, Child 2 was taken ill, but recovered; on February 7, 1921, Child 3 and the mother were taken ill. From Child 2 *Bacillus dysenteriæ* Flexner was isolated. Specimens from the mother and Child 3 were examined ten and eleven days respectively after the onset of the illness, but did not contain dysentery bacilli, while the finding of the bacilli in the stools of Child 2 was on the third day. In 1922, about twelve months later, a child in the house next door to the home of the above family was taken ill with diarrhœa. All six infections were very similar clinically, being characterized by extreme toxæmia, high temperature and the passage of blood and mucus in the stools.

From the above it may be deduced: (*i.*) that the "carrier" state exists in bacillary dysentery and (*ii.*) that case to case infection occurs.

The next problem is to determine how the infecting organisms are conveyed from the infected focus to the child.

There are now recognized four main vehicles of dysentery infection: (1) personal contact, (2) flies, (3) water and (4) dust. In such a region as the metropolitan area of Adelaide water cannot be any great factor and dust has not been shown to convey the infection. Therefore, infection by personal contact or by means of flies are the chief problems to consider.

Infection by Personal Contact.

Provided one member of a family is harbouring dysentery bacilli, it is quite possible that by personal contact other members of that family may become infected. For example, if the mother were somewhat uncleanly in her habits and neglected to wash her hands after going to stool, she might easily infect the next bottle she prepared for the baby or the morning milk or other articles of food in the kitchen.

Nevertheless, it is probable that infection by the above means is not the most usual.

Infection from Flies.

From early Biblical times flies have been recognized as a means of spreading disease. Thus Moses lays down some very definite instructions as regards the disposal of excreta ("Deuteronomy," Chapter XXIII., Verses 12 and 13).

Flies may carry infected material on the legs, wings and other parts of the body or they may ingest infected material and then pass it out in their excreta, which, of course, they may deposit anywhere. Many observers have found dysentery bacilli both on the feet and in the intestinal tract of flies captured in areas in which cases of dysentery occur. By either means flies may convey infected matter directly to a baby's lips, for warm, moist spot such as this is sure to attract flies, or indirectly they may infect food, especially milk or made-up food in the fluid form, where the organisms have a chance to multiply easily.

When it is considered how often a child's face is left uncovered and so at the mercy of any flies in the neighbourhood, it is remarkable that more children do not become infected.

Again, in many homes from which dysentery patients came, I have noticed that the food was exposed to flies; many homes had safes for food, it is true, but there were holes which would admit flies. Not only that, but in many homes in which solid food, such as dried milk, was used, no care was taken to see that the lids were kept on the tins.

From the above it will be recognized that in most homes from which dysenteric patients came, the conditions were quite favourable for infection by means of flies.

The fly (*Musca domestica*) almost always breeds in manure heaps, chiefly horse manure heaps. From Table V. it will be seen that in as many as forty-one out of fifty-one patients (*id est*, 80%) there was in the home a very close association with the horse, one or more being kept either in the yard or next door. As a control, from three hundred and seventy-six unselected out-patients' mothers, representing three hundred and seventy-six homes, details as to the nearness of a horse to the home were obtained and of these one hundred and forty-eight had a horse or horses within one hundred yards, that is, 38% as compared with the above 80%. As the horse itself does not originate a dysentery infection, the flies that come from the manure or are attracted by the manure, must be the factor in the causation of the disease.

Further, when possible, visits were paid to the homes of the dysenteric patients and the fly incidence noted, with the results as laid down in Table V. From this table it will be seen that the majority of the above homes were heavily infested with flies.

Table V..

Environment.	Blood and Mucus Cases.	Control Homes.
Prevalence of Flies—		
Inside House—		
Total Number of Cases	52	—
Few Flies	8	—
Moderate Number of Flies	5	—
Large Number of Flies	37	—
Outside—		
Total Number of Cases	50	—
Few Flies	8	—
Moderate Number of Flies	8	—
Large Number of Flies	34	—
Association with Horses—		
More Than One Horse—		
In Yard	7	25
Next Door	14	41
Near	4	18
One Horse—		
In Yard	7	39
Next Door	8	19
Near	1	6
No Horses	10	228
Total Homes	51	376
Percentage Associated with Horse	80	39

Also, the influence of season on the prevalence of flies is very definite. It is common, every-day knowledge that flies are very much more plentiful in the summer months than in the winter. Thus Dr. J. B. Cleland,[3] in Sydney, showed that flies begin to increase in numbers in October, continue to be very prevalent in November, December, January and February, after which they gradually tend to decrease in numbers till they become very scarce in winter. These figures correspond with those of Niven,[16] in Manchester (allowing, of course, for the difference in the seasons). Niven showed that the curve of the "number of fatal cases of diarrhœa commencing" almost coincided with that of the fly prevalence, but had only a general relation to the atmospheric temperature. It is realized that Niven did not separate dysentery from the group of diarrhœas of which it is but one member, but it is probable that the same principle applies to dysentery.

From what has been stated above it would seem that, although infection may occur by personal contact at any time and that this is the commonest form of infection in winter, the great increase in the number of cases of dysentery in the summer is due to the added risk of infection by means of flies, who carry the organisms from infected stools to food-stuffs or to the lips of children.

The epidemics of dysentery during the recent war are probably explained by the same means, for there the fly in large numbers had free access to fæces and to food. What happened on a large scale under active service conditions, happens every summer in our city on a smaller scale.

Symptomatology.

Incubation Period and Onset.

The length of the incubation period in children is uncertain, but in adults, as a rule, it is a matter of a few days only. There are two definite modes of onset:

(*i.*) After a period, varying from one or two days to a week, of mild diarrhœa, with the passage of stools not containing blood, there is a sudden exacerbation of symptoms and stools containing blood and mucus are passed.

(*ii.*) After a short prodromal period of about twenty-four hours diarrhœa suddenly starts, with the passage of numerous stools containing blood and mucus.

In this series the latter mode of onset has been the rule, but Kerley,[12] in America, finds the former more usual in that country.

One of the most constant prodromal signs in this series was drowsiness. Very often the mother volunteers the information that the child, usually bright and lively, lies on its cot very quietly and seems sleepy before the onset of the diarrhœa. On one occasion I visited the home from which a child had come to hospital with dysentery a few days previously and noticed a brother lying on a couch in a very drowsy state; that night a very severe attack of dysentery commenced, necessitating the boy's removal to hospital. In addition to the above drowsiness, the child may be fretful and out of sorts.

The disease is ushered in with severe diarrhœa, which may or may not be accompanied by vomiting. In this series the latter sign was recorded in about 40% of cases. Very often the child, if old enough, will complain of "pain in the stomach," while younger children will show evidence of much abdominal pain, which is often described by the mother as an "inward convulsion." I take this to mean colic.

The stools are enormously increased in number from the onset. It is not unusual to observe thirty-six motions of the bowel during the first twenty-four hours. Very often a mother, on being asked how often she changed the napkins, will reply: "I was always changing them." Some older children literally have to remain continuously on the bed-pan. Not all cases, however, are as severe as the above description would suggest, for some patients passed no more than about six motions in the twenty-four hours.

The temperature is raised in all cases, sometimes as high as 40.5° C. (105° F.), but 38.6° C. to 39° C. (101° F. to 102° F.) is more usual. The pulse rate and on some occasions the respiratory rate are increased. Convulsions at the onset are not unusual, more especially in younger children. This, no doubt, is analogous to the rigor that may occur in adults.

The appearance of a well-established case of average severity, say, twenty-four hours after the onset, is typical. The child lies quietly in bed and is obviously very drowsy and not at all interested in its surroundings. The face is pinched and is often of an almost yellowish pallor, the cheeks very flushed, the breath unpleasantly heavy. The mouth is dry and the tongue heavily coated with a brownish fur through which red papillæ sometimes show. The temperature is raised and the pulse and respiratory rate are increased in frequency. As a rule at this period nothing abnormal is detected in the heart and lungs. The abdomen is somewhat fuller than usual and there is a definite tenderness present, more especially along the course of the descending colon and sigmoid. The examination of the abdomen is obviously distressing to the child, for on palpating this region the muscles at once are felt to become rigid and on guard. At this period no splenic or hepatic enlargement can be detected. The stools are now very frequent. Once the fæcal contents of the bowel have been evacuated, the motions consist chiefly of blood and mucus. No definite sloughs are yet to be seen, but only small pieces of mucus streaked with blood; usually the motion is watery in consistence and evil-smelling.

Straining at stool is common and is one of the most terrifying symptoms to the child, who will scream with pain on these occasions. The mother will often describe these stools as being like "blood-stained jelly" and the description is most apt. It is quite unusual for the blood to appear as clots; in some cases, however, the mother gives a history of the child having passed pure blood.

The whole clinical picture of this stage of the illness is one of a very severe toxæmia.

Course of the Illness.

The course of this infection is, as a rule, short. In those patients who recover, the first sign of improvement is a lessening and a gradual disappearance of the toxæmia. Thus a child, instead of being drowsy, becomes lively and mentally more like a normal child. The formerly well-defined, pale face and malar flushes give way to the rosy glow of the healthy child. Shortly after this (that is, about the fourth or fifth day of the illness) the temperature and the pulse gradually become normal, the tongue clears up and any vomiting that may have been present ceases. The stools, too, become less frequent, the blood and mucus, formerly so characteristic, almost cease, but usually the mucus persists long after the stools have become fæcal. In uncomplicated cases recovery usually occurs in about ten days.

Death is liable to occur at any time during the

course of the illness. Of the patients of this series, twenty-six died, giving a mortality of 33%.

If the condition does not clear up during the first two weeks or so, it passes into one of chronic dysentery. There seems to be ample evidence to support the suggestion that the general effects of the *Bacillus dysenteriæ* pass off after a while and that in the chronic type the symptoms are due to the secondary invaders of the already damaged colonic walls. In these chronic infections the patients present all the signs and symptoms of exhaustion and dehydration. In chronic dysentery the extreme degrees of dehydration are not seen that are common in other forms of diarrhœa in children, for the patients in the former condition are older children.

The stools continue to be frequent, watery in consistence and to contain blood and mucus. Manifestations of a general lack of tissue resistance soon become evident, such as pressure sores, excoriation round the napkin area, pyelitis, *otitis media*, furunculosis. Evidence of continued toxæmia, such as œdema of the extremities and purpuric eruptions, is not uncommon. Death is not uncommonly due to a terminal broncho-pneumonic condition.

Special Symptoms.

Tenesmus or straining at stool is very common and may or may not be accompanied by prolapse of the bowel.

Colonic tenderness is usually a characteristic of the disease. In the acute stage of the illness the muscles will at once become rigid when the abdomen is palpated; but in some cases, when this does not occur, the colon may be felt as a hard and extremely tender band in the left iliac fossa. In the chronic type of case, which is more often associated with a sunken, flaccid abdomen, this tenderness can be elicited easily. Incidentally, in the latter type very often the liver can be felt to be hard and enlarged almost as far down as the umbilicus.

As has been stated above, at the onset the stools consist of the fæcal contents of the bowel. As soon as these are evacuated, the blood and mucus make their appearance. As the point is important, it will again be stated that, as a rule, the blood is not in the form of clots, but in streaks in the mucus, which is usually bile-stained. In some cases, however, a history of the child having passed pure blood is obtained. At first the mucus is in the form of small, bile-stained lumps, but in some cases there are actually pink-coloured sloughs about the size of a sixpenny piece. As recovery takes place, the blood gradually disappears, but the mucus persists long after the stools have become fæcal, which event usually occurs in from seven to ten days after the onset. In the more chronic cases, the blood and mucus persist long after the stools become fæcal and may be present four or five weeks after the onset. In the very chronic cases, the stools resume the more usual fluid, evil-smelling, greenish-brown appearance, with mucus, but no blood.

Microscopically the stools of the acute period contain numerous pus cells, blood cells and very few bacteria. In the thicker parts of the smear, that is, in a piece of mucus, it is not unusual to find localized collections of bacteria, chiefly short bacilli, some retaining Gram's stain and others not.

It may be taken as a working rule that any stool smear showing many pus and blood cells and few bacilli signifies bacillary dysentery, provided the child is suffering from diarrhœa for which there is no other obvious explanation.

Complications.

There are certain complications, apart from those of any diarrhœal condition in childhood, that call for special mention.

Arthritis.

In adults, arthritis as an early complication of bacillary dysentery is well recognized, but in children scant reference has been made to the condition in the past. F. S. Hone, in his description of the Morphett Vale (South Australia) epidemic of colitis in 1900 and 1901, remarked: ". . . . In one case a definite arthritis of the ankles, knees and shoulders, with a rise of temperature to 102° F., came on at the end of the first week of a fairly severe colitis." This Morphett Vale epidemic was probably bacillary dysentery, so this may be the first case of arthritis of dysentery in a child recorded in South Australia. In this series one boy, aged six years, developed an arthritis of the knee on the tenth day of the illness.

Bronchitis.

Bronchitis is a common event and usually comes on in the second week of the illness and may go on to broncho-pneumonia, a not uncommon terminal event in fatal cases.

Otitis Media.

Otitis media is very common and in any chronic case in which the temperature remains high and the child is not recovering, the ears should be examined for evidence of middle ear suppuration. Even in the absence of red or bulging drums under the above conditions paracentesis is far from unjustified.

Pyelitis.

Pyelitis is not rare. With sustained pyrexia or a recrudescence after the initial fever has passed off an invasion of the pelvis of the kidney should always be suspected. It should be borne in mind that failure to recover pus cells or bacilli in the course of one urine examination does not exclude pyelitis. In one case at intervals after the subsidence of the initial pyrexia, periods of raised temperature lasting a few days were followed by a final outburst to 39.7° C. (103.5° F.) lasting ten days. At the *post mortem* examination bilateral pyelo-nephritis was found; this was not the diagnosis during life.

Constipation.

Constipation is a quite common sequel in children who recover. As a rule this is of a most obstinate type and does not easily yield to treatment.

PATHOLOGY AND MORBID ANATOMY.

The *Bacillus dysenteriæ* Flexner exerts its influence by means of an endotoxin. Very rarely is the organism to be found in the blood stream. Nevertheless, Webster[24] in children and Rosenthal[19] in an adult have obtained the organism from the blood.

As it is not until after a week of illness that the blood of an individual suffering from dysentery becomes capable of agglutinating an emulsion of dysentery organisms, this property is not of very great value in the diagnosis of the condition.

On some occasions (Davison[5]) the organisms have been obtained from the urine of a patient with dysentery.

It has not yet been settled definitely whether a bacillæmia exists in the very early stages of dysentery. That this may occur does not seem altogether improbable, for in most infective conditions, such as typhoid fever, cerebro-spinal meningitis and so forth, a bacteræmia has been demonstrated in the stage of invasion.

In the twelve patients of this series who came to *post mortem* examination the main changes found were as follows:

In some cases there was a moderate amount of clear, yellowish fluid in the peritoneal cavity. The mesenteric glands were enlarged in all. In some they were pale and hard and in others red and soft. The stomach was distended as a rule, but the mucosa showed no gross changes. There were no changes of constant character in the small intestine. In some cases the Peyer's patches were red and raised and occasionally ulcerated.

In the large intestine there were the greatest changes, the distal portion being more severely involved than the proximal.

In the earlier stages there was merely a congestion of the mucosa, with hæmorrhages into its substance. Even in these early stages the lymphoid follicles were large and capped with small crater-like ulcers. It was usual to find a loss of the smoothness of the mucosa which had a moth-eaten appearance. Microscopically this proved to be a necrotic process involving the mucosal surface.

In more advanced cases there was definite ulceration of the internal surface of the wall of the intestine. As stated above, this process seemed to begin in the lymphoid follicles and to spread from them. In some instances the ulcers were as large as a threepenny piece. They were not undermined, but presented a bevelled appearance and the edges were raised and more or less rolled outwards. Some ulcers were quite deep, but on no occasion had they perforated into the peritoneal cavity. In one case of long standing the colon was of a pipe-stem-like rigidity that suggested a fibrotic process; on being examined microscopically it proved to be so. Microscopically the ulceration was seen to extend to various levels, on some occasions going as far as the muscular coat. The ulceration was accompanied by much inflammatory change in the surrounding tissue.

In some cases there was œdema of the sub-mucosa, while in others this layer showed a fibrotic condition.

In a few cases there were raised red areas in the lumen of the intestine which proved to be fibrous projections of the sub-mucosa into the mucosa, which was pushed forward.

The liver in some cases showed evidence of extreme fatty changes, while degenerative changes in the kidneys were occasionally present.

In quite half the cases *otitis media* was present.

No lesion was found elsewhere, either gross or microscopic.

TREATMENT.

As bacillary dysentery is an infectious condition, every precaution should be taken to prevent the spread of the disease to healthy individuals. As with any other diarrhœal condition, one of the most important lines of treatment is the dietetic. The following are the principles employed in this series with the greatest success. Nothing except boiled water was given for the first twenty-four hours—as much as the child would take, for by this means the toxæmia is reduced.

It is claimed by some that *Bacillus dysenteriæ* can live on either protein or carbo-hydrate media. Furthermore, toxic substances are produced by them from proteins, while harmless compounds are formed from carbo-hydrates. It is further claimed that the products of the breaking down of the carbo-hydrates are inhibitive to the growth of *Bacilli dysenteriæ*.

For the above reasons, as well as from the conclusions arrived at by clinical observation, the next dietary for the child should be made up chiefly of carbo-hydrates, such as rice water, barley water, raisin water or water arrowroot in older children. Morse and Talbot[14] advocate the use of a 5% to 7% solution of lactose. "Carnrick's Food" in weak mixtures has been used with considerable success. All authorities agree that cows' milk should not be used in any form, even whey or peptonized milk, in the early stages of the illness. Some advocate the use of weak veal or chicken broth, which, of course, contains practically nothing in the way of food.

After three or four days the addition of protein becomes necessary and this is added to the diet by means of such foods as whey, albumin water, weak milk derivatives *et cetera*. All authorities are agreed that fat should not be added in any large quantities till the child is well on the road to recovery, for this constituent will more than any other cause a relapse.

As regards medicinal treatment, very little is of any value, excepting the salines, such as sulphate of soda or magnesia. After an initial purgative dose, smaller doses should be repeated during the day. In the cases in which this line of treatment has been used, the results have been quite satisfactory. It is superfluous to add that the day of the old opium and bismuth mixture by mouth has passed.

In such a paper as this it is not necessary to go into the details of the symptomatic treatment of such conditions as exhaustion, dehydration and the like.

Anti-Dysenteric Serum.

The specific treatment by means of anti-dysenteric serum is a matter that, in my opinion, has not been tested to the full in Australia. There are certain points in the use of anti-dysenteric serum that must first be appreciated to assess the value of this line of treatment. It is generally agreed that serum is only of use in the early stages of the illness and that its main use is to combat the toxæmia. Therefore, failure to get good results in a more or less chronic case must not be in the nature of a surprise, but must be expected. Further, it is useless to give a few minims—this is meant literally—and then expecting good results; for this serum, as in the case of anti-tetanic and anti-diphtheritic serum, must be given in large doses and in doses increasing with the interval since the onset. In Australia the serum should be prepared from all races of Flexner's bacillus, *i.e., V, W, X, Y, Z* and other sub-races and should perhaps contain anti-Sonne type bodies. Such a serum is now prepared by the Commonwealth Serum Laboratories at Royal Park, Victoria, and is on the general market. The dosage used in the cases of this series, as a rule, has been as follows: In children under two years, ten cubic centimetres subcutaneously each day for four days; in children over two years, thirty cubic centimetres subcutaneously each day for four days. It is needless to add that the action of this serum is specific and that it is of no value except in bacillary dysentery, which has been shown above always to be accompanied by the passage of blood and mucus in the stools.

The results obtained in the cases in which anti-dysenteric serum was used is given in Table VI..

TABLE VI..

Case Number.	Age.	Day of Illness on which Serum was First Given.	Result.	Temperature (Centigrade) Before and After First Dose of Serum.						Daily Number of Stools Before and After First Dose of Serum.						Injections.	
				Before.	First Day After.	Second Day After.	Third Day After.	Fourth Day After.	Fifth Day After.	Before.	First Day After.	Second Day After.	Third Day After.	Fourth Day After.	Fifth Day After.	Dose.	Number.
1	Six Years	Fifth	Recovery	38.3°	37.8°	38.3°	37.8°	36.6°	—	14	9	6	11	9	5	30 c.cm.	4
2[1]	Four Years	First	Recovery	—	—	—	—	—	—	—	—	—	—	—	—	30 c.cm.	1
3	Six Years		Recovery	37.2°	37.2°	37.2°	37.8°	37.2°	—	5	3	8	8	3	5	10 c.cm.	4
4	Six Months	Eleventh	Recovery	38.3°	37.8°	37.8°	37.8°	—	—	6	6	3	—	6	—	10 c.cm.	2
5	Thirteen Months	Eighth	Death	38.3°	37.8°	37.8°	37.8°	37.2°	—	20	10	8	—	6	—	30 c.cm.	3
6	Three Years	Third	Recovery	40.0°	38.9°	36.6°	36.6°	36.6°	—	30	4	17	12	15	6	30 c.cm.	3
7	Eight Years	Fifth	Recovery	37.2°	37.2°	37.2°	37.2°	37.2°	37.2°	9	1	1	3	4	3	10 c.cm.	4
8	Six Months	Fourth	Recovery	38.9°	38.9°	38.3°	38.9°	40.0°	—	5	1	4	9	7	3	10 c.cm.	3
9	Thirteen Months	Sixth	Recovery	37.8°	36.6°	36.6°	37.8°	36.6°	—	7	4	3	2	3	1	10 c.cm.	4
10	Fourteen Months	Eighth	Recovery	37.2°	36.6°	36.6°	36.6°	36.6°	—	—	1	5	7	1	2	10 c.cm.	4
11	Six Months	Fourth	Recovery	36.1°	36.1°	36.1°	36.1°	36.1°	36.1°	—	6	5	5	3	2	10 c.cm.	4
12	Four Years	Second	Recovery	39.4°	37.2°	37.2°	36.6°	36.6°	—	Many	6	5	6	6	5	10 c.cm.	4
13	Twelve Months	Fifth	Recovery	36.6°	36.6°	36.6°	36.6°	36.6°	36.6°	20	6	7	4	5	—	10 c.cm.	3
14	Sixteen Months	Fourth	Death	38.9°	38.9°	38.9°	38.9°	—	—	7	6	1	4	6	2	10 c.cm.	4
15	Eight Months	Twelfth	Recovery	36.6°	36.6°	36.6°	36.6°	36.6°	—	6	5	4	6	7	—	10 c.cm.	4
16	Five Years	Fourth	Recovery	37.8°	37.8°	37.2°	37.2°	37.2°	37.2°	11	5	3	2	1	1	10 c.cm.	4
17	Nine Years	Sixth	Recovery	37.8°	37.2°	37.8°	37.2°	37.2°	—	10	3	3	1	1	3	10 c.cm.	4
18	Five Months	Third	Recovery	37.2°	—	—	—	—	—	5	3	2	2	2	1	10 c.cm.	4
19	Nine Months	Eighth	Recovery	—	—	—	—	—	—	13	3	5	—	1	—	20 c.cm.	2
20	Three Years	Fourth	Death	—	—	—	—	—	—	—	1	2	2	2	2	10 c.cm.	4
21	Eighteen Months	Sixteenth	Recovery	36.6°	36.6°	36.6°	36.6°	36.6°	36.6°	2	1	1	2	2	1	10 c.cm.	4
22	Three Years	Fifth	Recovery	37.2°	37.2°	37.8°	36.6°	37.2°	37.2°	—	3	4	2	2	—	10 c.cm.	3
23	Seven Months	Thirteenth	Death	36.6°	37.8°	40.0°	—	—	—	4	4	3	3	3	4	10 c.cm.	4
24	Five Months	Eighth	Recovery	36.6°	36.6°	36.6°	36.6°	36.6°	—	3	5	4	1	—	1	10 c.cm.	2
25	Fifteen Months	Twentieth	Recovery	37.2°	37.2°	37.2°	36.6°	36.6°	36.6°	2	4	2	3	6	—	10 c.cm.	4
26	Twelve Months	Twenty-Fifth	Death	36.1°	36.1°	38.3°	38.3°	36.6°	36.1°	—	3	6	4	4	2	10 c.cm.	4
27	Three Years	Third	Recovery	36.6°	37.2°	38.3°	38.3°	36.1°	36.1°	5	2	3	2	2	1	10 c.cm.	4
28	Seven Months	Fourth	Recovery	36.1°	37.2°	36.1°	37.2°	36.6°	36.6°	—	5	4	6	3	2	10 c.cm.	4
29				—	36.1°	36.1°	36.1°	36.6°	—								

[1] No record of temperature or daily number of stools.

From this it will be seen that the mortality among thirty-one patients treated with serum was five (*id est*, 16%), while among fifty-eight patients not treated with serum the deaths numbered twenty-one (*id est*, 36%). Of the five patients who died after having received serum, two received the serum twenty-five and thirteen days respectively after the onset of the illness, while 71% of those who received serum and recovered, were treated with serum within a week of the onset of the illness.

Further, there is a general tendency for the fever and the number of bowel motions to be decreased after the giving of the serum. In quite a number of patients serum rashes appeared, either on the sixth or seventh day, after the first dose of serum. This rash did not seem to be accompanied by any general disturbance.

Results obtained in America from the use of serum in bacillary dysentery in children have not been altogether satisfactory and recent observers do not place much reliance in its use as a therapeutic agent.

SUMMARY.

1. Bacillary dysentery is not generally recognized as a common cause of death among children in Australia.
2. Bacillary dysentery is a more common cause of diarrhœa during the second half of the first year of life than the first half and is still more common after the first year of life.
3. Cows' milk appears to be the most common diet on which children develope dysentery, but this is the most usual article of food used during the age period at which dysentery is most frequent. Children will develope dysentery on any diet, the breast not excepted.
4. Breast-fed children are much less likely to develope the disease than artificially-fed children.
5. Infection is most often obtained from another patient or a "carrier," either by personal contact or by means of flies.
6. The horse, being responsible for the favourite breeding ground of flies (horse manure), is a potent but indirect factor in the spread of the disease, more especially in the summer months.
7. The Flexner type of dysentery bacillus is the one most often met with in the Adelaide cases; the Shiga type has not yet been seen in such cases.
8. The probability of finding Flexner's organism in a diarrhœal stool containing blood and mucus decreases with the time after the onset of the illness.
9. Every case of diarrhœa with the passage of blood and mucus in the stools should be regarded as bacillary dysentery until proved to be otherwise.
10. Bacillary dysentery in children presents a very definite clinical picture.
11. The pathological changes are chiefly found in the large intestine.
12. Treatment with salines and a polyvalent anti-dysenteric serum offer the most promising lines of treatment.

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Notes on Books.

TIPS FOR STUDENTS.

PROFESSOR J. A. LINDSAY, of the Queen's University of Belfast, apparently values a short road to knowledge or should we say to a substitute for knowledge. He has published a little volume of the sayings of Hippocrates, Celsus, Paracelsus, William Osler and many other wise men of the medical profession, of so-called clinical memoranda and of hints for practitioners.[1] The practitioner who needs to be reminded of the value of clinical signs, is unworthy of the title doctor. He who knows his work, does not need such a book. We fail to understand what can be learned from a sentence such as the following: "The leukæmias are readily diagnosed by a blood examination."

[1] "Medical Axioms and Aphorisms and Clinical Memoranda," by James Alexander Lindsay, M.A., M.D., F.R.C.P.; 1923. London: H. K. Lewis & Company, Limited; Crown 8vo., pp. viii. + 192. Price: 6s. net.

The Medical Journal of Australia

SATURDAY, MARCH 31, 1922.

Jenner and After.

IT is one hundred years ago since Edward Jenner died. He was born in 1749, three years after the Inoculation and Small-Pox Hospital was established in London. Forty-nine years later he produced evidence in favour of inoculation with lymph from cow-pox as a protective against variola that led eventually to the prohibition of direct inoculation with the virus-containing matter of small-pox. Of Edward Jenner's achievements in practice as a clinical observer and as an astute and competent investigator only that connected with vaccination concerns the medical profession of to-day. His classical publication of "The Inquiry into the Causes and Effects of Variolæ Vaccinæ" stands as a monument. The remote effect of his teaching has penetrated far beyond the confines of the prophylaxis of one disease. The history of the prevention of variola has been written many times and men still raise difficulties and question the wisdom of employing the means prescribed by Jenner more than a century ago. Anomalous as it may appear, there is no doubt that as early as 1774 it was recognized by some farmers in Dorsetshire that the conveyance of cow-pox to human beings warded off an attack of small-pox. One farmer is said to have introduced the matter from affected cows into his wife and sons to protect them against small-pox. Jenner attacked the problem from a scientific point of view and established the method that is still in use. Even those who claim that the reduction in the incidence and mortality of variola are the result of isolation and other administrative measures, admit that vaccination with cow-pox lymph confers a complete or almost complete immunity against an attack for several years after the operation. In England, vaccination was introduced officially as an obligatory duty in 1853. In 1867 the boards of guardians were empowered to appoint vaccination officers and in 1871 they were required to appoint these officers. Toward the end of last century many people preferred to have their babies vaccinated at their own homes rather than at the vaccination stations. It is significant that while the law at that time provided for compulsory vaccination in infancy, there was no severe penalty for evasion and those who objected to the procedure, paid the fine and continued to resist. The conscientious objection clause was introduced in 1898 and in 1907 the law was altered to enable objectors to obtain exemption without trouble. It seems strange that a measure for the protection of the community and of the individual should be left in this unsatisfactory position in the country where the process was discovered and elaborated. Either vaccination is the most reliable and effective means of preventing small-pox, in which case it is unreasonable to admit of personal objection, or other means are superior, in which case vaccination should not be prescribed as a compulsory measure. In order to settle this point a Royal Commission was appointed late in the century and its classical report was issued in 1896. The learned members of this commission found that vaccination diminished the liability to the disease, that when it failed to prevent it altogether, it modified its severity and that thorough and repeated vaccination afforded a real protection. Notwithstanding this report, the ridiculous and illogical legislation was allowed to remain unamended. Truly a prophet hath no honour in his own country. In Germany the vaccination laws have been much more drastic and the lessons to be learned are valuable. Prior to the war every infant was vaccinated. The penalties for non-compliance were deterrent; after their infliction, the child was vaccinated. The result was that Germany remained free from variola, save for a stray patient who crossed the border from other countries. During the war between one and two million Russian prisoners were interned in Germany. The populace of Russia has not been subjected to vaccination. As a consequence, variola was common in Russia before the war and the disease spread among the internees. It spread to the German population. It is stated that those who had been vaccinated within recent years, escaped

infection, while the attacked were people whose immunity had become lessened by the hand of time. In the time of peace these partially protected persons were protected by the high level of immunity of the population as a whole. It must further be remembered that second vaccination was compulsory for conscripts on joining the army. The effect of the privations during the war years and after have undoubtedly reduced the resistance of the German people against infective disease and it is therefore not surpising that the Russian internees introduced variola into that country. The lesson is clearly that vaccination, if efficiently carried out, places a people in a position of safety which will only be threatened in a time of calamity and extensive exposure.

Australia has been threatened with variola on several occasions. The last epidemic was of an unusually mild character and was eventually controlled, in part at least, by wholesale vaccination. Surely alarmist measures of this kind are undesirable. Since it has been proved conclusively that Jennerian vaccination stands alone in the prophylaxis of variola, it is unwise to permit the community to remain unprotected until the danger is present. Jenner made a mistake when he announced that vaccination conferred a lasting immunity. The protection is now known to diminish within a few years. Sensible individuals submit their children to vaccination at birth and at the age of eight, nine or ten years. A third vaccination should be done when the individual arrives at the age of twenty. In the event of an outbreak of small-pox everyone whose vaccination lies more than two or three years back, should be revaccinated. Even this will not provide complete safety, if the majority or even a substantial minority of the people is allowed to remain unprotected. In honouring the man who indicated the way to safety, we should at least show our sincerity by putting his teaching to good use.

THE TEACHING OF PATHOLOGY.

IT has been pointed out in these columns on many occasions that the curriculum at present followed in our medical schools is the product of past days, modified from time to time in a vain endeavour to adapt it to modern requirements. It serves to prepare medical students for examinations, but does not equip them for the life of a scientific practitioner of medicine. The student is given five or six years to master the elemental sciences on which medicine is based and to gain a practical acquaintance with disease in its varied manifestations. Those in authority are exercised on account of the many things to be taught and the relatively short time for the teaching. No attempt has yet been made to economize the time of the student by eliminating the systematic lecture and by substituting the study of text books of a reliable type and by increasing the amount of practical work. The result of this method of hurry, cramming, listening to dull lectures and watching instead of doing is that the medical practitioner after a few years of activity forgets the scientific facts on which his knowledge is based, and consequently fails to realize the importance of possessing a clear conception of physiological processes during health and their modification under the influence of disease-producing agents. If the knowledge of bio-chemical and bio-physical phenomena is to influence the judgement of a medical practitioner in his dealing with his patients, it is essential that these sciences should be taught by an expert in relation with disease processes of the various system. What is known as physiology is the bio-chemistry and bio-physics of the body in health. Similarly pathology is biochemistry applied to the body under the influence of some living or chemical agent that is capable of disturbing the normal performance of the functions. It also embraces knowledge concerning the biology and chemistry of these agents. In the past the morbid anatomist has endeavoured to correlate the visible changes in the structure of organs after death or after removal during life with the clinical manifestations of disease. The bacteriologist has taken up another aspect of the problem and has dealt with infective disease from the point of view of the causative virus. He has been chiefly concerned with artificial cultural and morphological characters of bacteria. The protozoologist had occupied another water-tight compartment, as has the immunologist,

while the clinician has usually been satisfied to give the disease a name and to associate with this name certain well defined histological or chemical abnormalities.

Medical practitioners of the future will need to define disease in terms of chemistry, physics and biology. By this is meant that it far less important to give a disease a name than to be able to estimate with a high degree of accuracy the nature and degree of the alterations of the functions of each organ and system within the body and the mechanism leading to each of these alterations. To attain this conception of disease processes, it is essential that there should be no considerable divorce between the teaching of the physiology of any particular system, that of the clinical manifestations of disease processes affecting this system and that of the pathology of these disease processes. It is assumed that the student has mastered in the early days of his curriculum not only the fundamental facts of organic and inorganic chemistry and of elementary physics, but also the application of chemical and physical laws to biological conditions. He will have recognized the relation of structure to function and the general principles which govern physico-chemical reactions within the animal body. When the time arrives for the special study of a special system, he will have no difficulty in reconciling the structure, the anatomical relations and variability of particular organs with the chemical and physical peculiarities of their secretory or other products and with the physical quality of their functions. He should lose no time to apply this newly acquired knowledge to the manifestations of disease. In the clinic he can watch and have explained to him the characteristics of the alterations of these normal qualities resulting from disease processes. The pathologist should meet him half way and demonstrate to him the importance of special investigations of the excretory fluids and of tissues and fluids capable of being removed by simple means during life. This lesson in clinical pathology must be correlated with experiment and demonstration in the *post mortem* room and in the laboratory and with the study of the chemical and physical processes involved. Much chemistry must be taught through the microscope, and much physics can be learned with the aid of the test tube and the various apparatus in common use at the bedside. The pathological tutor, whose function it would be to bring the doctrines of the morbid anatomist, of the bacteriologist, of the protozoologist and of the immunologist to the ward, would have as important a rôle to play as any teacher within the medical school.

Current Comment.

ATMOSPHERIC CONDITIONS IN INDUSTRY.

Until quite recently it was commonly believed that the freshness or otherwise of the air depended on the percentage of carbon dioxide present. The introduction of Hill's kata-thermometer has been chiefly instrumental in enabling observers to determine the true condition of affairs. The kata-thermometer is an alcohol thermometer with a cylindrical bulb about four centimetres long and 1.7 centimetres in diameter. The stem is about twenty centimetres long and it is graduated from 35° to 38.8° C. (95° to 100° F.). In order to take a reading the bulb is heated in hot water until the alcohol rises into the small reservoir present in the top of the instrument. The time in seconds is taken, during which the alcohol level falls from 38.8° C. to 35° C. (100° F. to 95° F.). By means of a factor peculiar to the instrument the cooling power of the air is calculated in millicalories per square centimetre of cooling surface per second. The factors bearing on the cooling power of the air are the temperature, humidity, velocity of movement and density of the air. Hill established the relations of these various factors and expressed them in mathematical equations. He undertook many experiments and came to many important conclusions. He found that the quality of the "freshness" of the air was due to its cooling power on the body and that oppressiveness in ordinary atmospheres was due to heat stagnation. He found that the cooling power of the air is increased by low temperature, low humidity and high velocity of motion. He failed to find evidence of any organic toxins in the air and showed that a carbon dioxide content of 1% or even higher produced no deleterious effects on the human body, but that the only effect produced was an increased ventilation of the lungs such as would ordinarily take place with increase in exercise. He pointed out that the cooling power of the air unless carried to extremes had a beneficial effect upon health in that it promoted metabolism and increased immunity to infections.

Dr. H. M. Vernon has recently made an investigation into the atmospheric conditions in industry.[1]

[1] *The Journal of Industrial Hygiene*, December, 1922.

He points out that the estimation of atmospheric conditions in a workshop is a laborious process. It is necessary to make observations at various times of the day and in all seasons of the year. In addition to this it is advisable to make observations in regard to the air outside the factory, Dr. Vernon divides his observations into two classes. First of all, he deals with shops where the nature of the industrial process is such that it should not interfere with the attainment of normal standards in atmospheric conditions. Secondly, he deals with shops in which the industrial processes are such that the normal standards have to be relaxed to a certain extent. In the first place, it was necessary to determine what should be regarded as normal. Hill considered that the dry kata-thermometer cooling power should be six or more and that when measured by the wet kata-thermometer it should be eighteen or more. Dr. Vernon points out that with high outdoor temperatures it is necessary to make some variation. If the cooling power is to remain at six with a high temperature outside the shop, the velocity indoors would have to be increased to an enormous extent. He therefore took as a normal standard a cooling power of five when the outdoor temperature exceeded 22.2° C. (70° F.).

In the boot and shoe industry, thirty-five factories were examined. In the winter readings all but two had a cooling power of six or more. In the summer readings, thirteen had a cooling power of less than six and six showed a figure that was less than five. Taking the outdoor conditions into account, the occurrence of cooling power values below six was three or four times greater than that permitted by the adopted standards of normality. In view of the fact that the character of the work done varied considerably, Dr. Vernon regarded these results as satisfactory on the whole. In the printing trade the atmospheric conditions were not nearly so good. A cooling power of less than six was observed in 38% of two hundred and sixteen winter observations, and in 91% of sixty-five summer observations. This unsatisfactory state of affairs was almost entirely due to low air velocities. In the pottery industry the conditions were bad owing to the fact that furnaces situated in the centre of the shops emitted large volumes of hot air into the buildings. Dr. Vernon points out that this is avoidable if stoves of a modern type are used. In spite of the bad conditions existing in the shops, the employees did not open the windows sufficiently to effect any improvement.

In several of the industries investigated (Dr. Vernon's second group) the nature of the industrial process was such that some departure from the normal conditions is necessary. In certain weaving processes this obtains and the necessity for modification of standards is recognized in the *Factory Acts*. A certain difference between the wet and dry bulb temperatures is insisted on, the difference varying with the temperature. It is unnecessary to give a résumé of all the figures observed. It is sufficient to state that in very many instances the weavers complained of the conditions and in Dr. Vernon's opinion with some justification. He maintains that there is no excuse for low air velocities. In a large modern laundry examined the winter reading of the cooling power did not fall below 4.5, though the temperature rose as high as 27.7° C. (80° F.). The summer reading was less than three. Dr. Vernon concludes that if high temperatures are necessary in laundries, they must be compensated by greatly increased artificial ventilation.

The value of this work of Dr. Vernon's lies in the fact that it shows what should be done and what can be done to improve conditions in industry. As he states, it should not be possible for an employer to say that in his particular industry abnormal conditions are necessary. He should be compelled to make some attempt to improve conditions. More investigation of this kind and continued instruction in regard to it will bring the day of redemption in industrial conditions much nearer.

CHOLECYSTECTOMY.

IN the issue of this journal of October 14, 1922, the question of cholecystotomy and cholecystectomy was discussed. The basis of this discussion was a contribution by Mr. James Sherren to *The British Journal of Surgery*. Mr. Sherren referred to the work he had done in gall-bladder surgery during a period of ten years. He showed that cholecystectomy had very largely taken the place of cholecystotomy and illustrated his statement by figures showing the results he had obtained. He came to the not unjustified conclusion that the present day surgeon must justify his choice of cholecystotomy and not of cholecystectomy. The conservative view with cholecystotomy as the operation most to be desired has recently been championed by Dr. J. Christopher O'Day.[1]

Dr. O'Day states that there are two dangers always present in gall-bladder disease, cirrhosis of the head of the pancreas and dilation of the bile ducts. Cirrhosis of the head of the pancreas has its origin in a gall-bladder which is infected and contains stones. Drainage of the gall-bladder will cure this cirrhotic condition. From this Dr. O'Day concludes that the pancreatic cirrhosis is caused by the infected material from the gall-bladder taking a direction of least resistance. He states that the most desperate-looking gall-bladders return to normal after drainage. If this be so, it is difficult to explain the number of recurrences after cholecystotomy quoted by Mr. Sherren. Dr. O'Day does not express his opinion of the effect of removal of an infected gall-bladder on a cirrhotic pancreatic head. If, as he states, cirrhosis of the head of the pancreas is due primarily to a diseased gall-bladder, it certainly seems reasonable to suppose that removal of that organ would result in improvement in the cirrhotic condition. The other danger caused by

[1] *Annals of Surgery*, January, 1922.

removal of the gall bladder is dilatation of the bile ducts. Dr. O'Day holds that the gall-bladder acts as a kind of shock absorber in the presence of increased backward pressure from the bowel. When it has been removed, the increased pressure causes dilatation of the ducts and eventually complete loss of the sphincter action of the duodenal opening of the bile duct. In this way a cholangitis may arise at a later date. He says that the dilatation may not appear till long after the performance of cholecystectomy. He does not quote any instances of this having occurred. He refers to the small contracted gall-bladder often found at the time of exploratory operation. This organ will contain no mucous membrane. Although there may be one or two stones present and pain may have been the main symptom complained of by the patient, such an organ will not be the cause of the symptoms. Cholecystectomy has been performed by the disease and Dr. O'Day thinks that, were it possible to examine the bile ducts, they would be found to be dilated in a manner similar to that following removal by the surgeon. It is doubtful whether the experience of other surgeons would agree with that of Dr. OD'ay in this regard.

The views expressed by Dr. O'Day in regard to the function of the gall-bladder are very definite. It is a composite one and has a chemical, physical and mechanical aspect. He makes the extraordinary statement that it is scarcely within the pale of the domain of the surgeon to discuss other than the mechanical function of the organs with which he has to deal. A surgeon should be more than an operator. Not only must he understand the pathology and the nature of the chemical and physical changes occurring in the particular organ with which he is dealing, but he must endeavour in the light of his accumulated experience to apply that knowledge in the direction of both clinical and preventive medicine. All real surgical progress has been made in this way.

OSTEO-CHONDRITIS DISSECANS.

Loose bodies in a joint may have various origins. In the knee joint, for example, the commonest cause of loose body is a displacement of the semilunar cartilage. Foreign bodies, though rare, may be found. Osteo-cartilaginous bodies are often present. Henderson in discussing these osteo-cartilaginous bodies showed that they could be caused by direct trauma, by *osteo-chondritis dissecans*, by *osteo-chondromatosis* or by hypertrophic arthritis. It is to König, that credit must be given for having described a condition to which he gave the name of *osteo-chondritis dissecans*. König stated that loose bodies found in a joint that was gravely diseased, were of an entirely different nature to those whose origin could be attributed to a circumscribed disease of the articular surfaces of bones. He stated that in consequence of a process not yet explained fragments of bone became separated from the articular surfaces. There was no previous injury. The surfaces of the separated bone became covered by dense fibrous tissue containing cartilage cells. He showed that the defects in the bone became covered over in the same way. He held that there might be a certain amount of fluid effusion and slight villous hypertrophy, but that otherwise these joints looked perfectly sound and remained so after the removal of the loose bodies. Dr. Albert H. Freiberg has recently made a communication on the subject.[1] He records the histories of five patients who suffered from *osteo-chondritis dissecans*. The first patient was a woman aged forty-nine years. Discomfort was first experienced after feeling a twinge of pain while she was at work in a gymnasium class. There was no other injury to the joint. There was no swelling of the knee and merely some limitation of extension. The spine of the tibia was not abnormally long. Three loose pieces of bone were removed at operation. Dr. Freiberg states that it would be gratuitous to assume that the condition in this patient was due to direct trauma. The second patient was a girl aged seventeen years. The left knee became affected after a slight injury while playing hockey. Another injury some months afterwards caused her to come under treatment. She developed a limp and a loose body was removed from the mesial condyle of the femur. Subsequently this patient developed a loose body in the right knee joint. No trauma occurred in this instance. The loose body was removed and a second piece of bone removed from this joint at another operation. In this patient the tibial spine was unusually long. Dr. Freiberg draws attention to the fact that no injury preceded the occurrence of the loose body in the second knee. It is not necessary to enter in detail into the history of the other three instances reported by Dr. Freiberg. It is sufficient to say that in two of them there was a history of trauma that may have had something to do with the onset of the trouble. In both these patients the knee joint was the seat of the disease. In the last patient of the series the condition affected the elbow joint. There was no history of trauma.

In discussing the ætiology of the disease it must be recognized that König was probably right when he described it as a separate entity. In endeavouring to explain the cause, he propounded the theory that the end artery supplying this area became plugged and that the affected part sloughed off. He held that the slightest injury, such as a quick turn, would cause the initial symptoms. Freiberg and Woolley described arterial changes which they thought were in causal relationship to the disease. Dr. Freiberg now states that the changes described by Woolley and himself in 1910 were inconclusive. He thinks that the disease should be regarded as being the result of trauma, though possibly only of an indirect nature. He holds that there are three necessary concomitant elements, the existence at the affected point of terminal arterioles, a long tubercle of the tibia and internal trauma.

[1] *The Journal of Bone and Joint Surgery*, January, 1923

Abstracts from Current Medical Literature.

GYNÆCOLOGY AND OBSTETRICS.

Cæsarean Section.

J. W. BALLANTYNE (*Edinburgh Medical Journal*, January and February, 1922), writes a critical review of the contributions to medical literature on Cæsarean section during the period 1918 to 1920. He considers that there has been a steady growth of opinion in its favour among obstetricians, the indications have been more clearly defined and extended, the technique has been improved and both maternal and infantile mortality lessened. But the exact limits and suitability of the operation in eclampsia and *placenta prævia* have not been defined, the ideal technique in the presence of infection has not been discovered and the maternal mortality and morbidity have not been reduced sufficiently to warrant the obstetrician in pressing the operation upon the parents when there are alternative procedures with less risk to the mother. After reviewing the various papers covering the period of his investigation the author states his conclusions. As regards *placenta prævia*, the operation will be done more for the child's sake than for the mother's, and therefore will usually be passed by in instances in which the fœtus is believed to be dead or dying or has not reached full viability. He considers that it should not be performed before the eighth month. It will be reserved, too, for the presumably central type of *placenta prævia*. The cervix should preferably be still undilated, so that the elderly primipara with a rigid cervix is particularly suitable. The presence of an additional cause of difficulty in labour is in favour of Caesarean section. In accidental hæmorrhage it would appear that section is rarely called for and that when these rare indications occur, hysterectomy should be performed. In eclampsia he considers that the tendency is to abandon section as the ideal treatment, especially with the development of prenatal clinics and treatment. In contracted pelvis of advanced degree Caesarean section should be performed. As regards future labours and the effect of pregnancy on the scar the author states that every subsequent labour should take place in a hospital where expert operators are available and every subsequent pregnancy should be under adequate prenatal supervision. He reviews the rare indications for the operation and concludes with a summary of the technique. The relative merits of catgut and silk as suture material are still a subject of debate. The potentially infected uterus is dealt with by high incision, by low incision with so-called extraperitoneal approach and by hysterectomy. Hysterectomy may be performed either with the uterus unopened or after extraction of the child. Finality has not been reached in regard to the relative merits of these methods. Local anæsthesia has been advocated by some recent authors.

Eclampsia and the Other Toxæmias of Pregnancy.

GIBBON FITZGIBBON (*The Irish Journal of Medical Science*, August, 1922) reviews his experience while Master of the Rotunda Hospital for the past two and a half years in toxæmias of pregnancy and eclampsia. During this time thirty-six eclamptic patients were treated, while in one year there were forty patients suffering from toxæmic albuminuria, sixteen who suffered from eclampsia and four from toxæmic hæmorrhage. The author states that the pathological findings in these three conditions are the same, namely, a subacute nephritis together with a variable degree of focal necrosis in other organs, particularly the portal system of the liver. He regards this as an indication of an irritant excreted by the kidneys, injuring their function and then affecting other tissues of the body. He considers that there are two factors that are commonly present and that they have an enormous influence in the production of toxæmia. These are a tendency to overeat and constipation. The former produces an extra demand on the eliminating organs of the body, the latter a failure of the eliminating organs to respond to or keep place with the demand. The treatment is based on these premises, but the author practically discards morphine from the routine treatment at Rotunda hospital on the grounds that this treatment is based altogether on elimination. The treatment is practically the same in any toxæmic condition except in regard to modifications necessitated by the immediate urgency of a symptom, or the consciousness of the patient. Any alteration is subsidiary to the main treatment.

The Relation of the Thyreoid Gland to the Female Pelvic Organs.

C. M. WILSON AND A. W. BOURNE (*The Lancet*, May 27, 1922) conclude that the basal metabolic rate is in the majority of pregnant women, but not in all, raised above that normally found in the non-pregnant woman. The basal metabolic rate of different pregnant women at corresponding periods of gestation varies considerably, but the authors did not find it possible to trace any relation between these variations in the rate and the clinical condition of the mother. It remains to be determined whether there is any correspondence between the fluctuations in the rate of the same patient at different times and her clinical state on the one hand or that of the child on the other. In some patients, probably the majority, the rise in the basal metabolic rate disappears after delivery, but in a certain number the high rate of pregnancy does not subside after the puerperium. They put forward the suggestion that in some of the latter patients the excessive thyreoid secretion gives rise to a menorrhagia without pelvic signs. Additional evidence that a high basal metabolic rate is associated with certain forms of menorrhagia is furnished by a group of patients to whose condition the name functional menorrhagia is attached in order to draw attention to the absence of any demonstrable pelvic abnormality. The conditions comprised in this group are resistant to all ordinary medicinal and operative measures, but respond readily when the thyreoid gland is exposed to X-rays. The disappearance of the pelvic symptoms is coincident with a fall to the normal of the basal metabolic rate.

Viability of the Fœtus.

L. DROSIN (*New York Medical Journal and Medical Record*, July 5, 1922) states that the usual methods of determining whether the *fœtus in utero* is alive sometimes fail to give conclusive evidence one way or the other. He describes two procedures that he has found to be of value in this regard. In the first method the patient is made to lie on her back with the legs either flexed or extended. She is then directed to exhale and to suspend respiration for as long a time as possible. This is repeated from ten to fifteen times. In order not to exhaust the patient, she is allowed to take a few moderately deep inspirations during the procedure. In this way the oxygen supply to the fœtus is disturbed and diminished and, becoming restless with air hunger, it will begin to move. These movements may vary much in extent. In the other method the anterior shoulder of the fœtus is located and gentle and firm pressure is made on it in an upward and backward direction with the tips or palmar surface of the fingers. It will be found that the shoulder, assuming a vermiform action, will turn in a direction successively upwards, backwards, inwards and downwards. The movement may possibly be repeated several times. The shoulder motion is more or less shared by the entire body and these movements are palpable to the examiner's free hand lying on the mother's abdomen. If the examiner's fingers are placed in the vagina he can usually feel the head moving.

Uterine Hæmorrhage After Vaginal Operations.

JOHN PHILLIPS (*The Lancet*, March 18, 1922) quotes from his case records five instances in which patients who had undergone minor vaginal operations have had uterine hæmorrhage of a severe type necessitating the use of subcutaneous injections of saline solution and ergotine. In one instance it followed the passing of silkworm gut sutures to draw together a lacerated perineum fourteen days after labour.

In another instance it followed the removal of a small vaginal cyst from the anterior wall of the vagina. In a third, the excision of a tender fleshy hymen preceded the bleeding and in the other two posterior colporrhaphy. In three other instances similar severe uterine hæmorrhage followed minor operations on other parts, namely, removal of a tooth under gas anæsthesia, a small operation on the breast and a small operation for external piles. The author states that it is difficult to give any definite reason for this hæmorrhage but advises that where possible an operation should be performed seven days after the last menstrual period and not within six days preceding the period.

Intractable Vulvar Ulcer (Esthiomene).

W. P. HEALEY (*The American Journal of Obstetrics and Gynecology*, September, 1922) reports an instance of esthiomene of the vulva in a patient, aged twenty-two years, which was cured by the use of a vaccine of *Bacillus proteus* after all other methods of treatment had been tried for over twelve months. The *Bacillus proteus* was grown in culture from the surfaces of the ulcer. The initial dosage was fifty millions, working up at three to four day intervals to five hundred millions. Thirty doses produced a cure. There was prompt relief from pain, together with rapid healing of raw surfaces.

NEUROLOGY.

The Respiratory and Sleepless Forms of Encephalitis.

PIERRE MARIE AND G. LÉVY (*Revue Neurologique*, October, 1922) draw attention to the respiratory and sleepless forms of epidemic encephalitis (*encephalitis lethargica*). Respiratory troubles have been observed by others as well as the writers and may be ranged in three categories. The first group includes disturbances affecting the respiratory rhythm namely tachypnœa, bradypnœa and apnœa. The second group includes spasmodic cough and the third group respiratory tics and abnormal naso-laryngeal sensations. In patients with tachypnœa the breathing rate may be increased to from fifty to eighty per minute. This is a most distressing condition and usually ends fatally, but sometimes occurs in recoverable paroxysms. The spasmodic cough is reminiscent of whooping cough. The respiratory tics occur most frequently as attacks of irrepressible sneezing and are specially common in children. Although lethargy is a dominant feature of epidemic encephalitis, there are instances in which it is wholly absent and its place taken by insomnia. In children specially, there may be an inversion of the sleep rhythm. They may pass night after night in a state of restless agitation and sleep during the day. Sometimes either they are late in going to sleep, or their sleep is restless and unnatural. Mental disturbance, the acquirement of bad habits and physical decline are common accompaniments. In both the respiratory and sleepless forms there is an unfavourable tendency to chronicity.

The Meningiomata.

HARVEY CUSHING (*Brain*, Part II., 1922) publishes an historical account of the meningiomata and discusses their source and seats of origin. Many names have been attached to them such as endothelioma, cylindroma, psammoma, sarcoma of the *dura mater et cetera*. They are easily recognized not only by their great size but because they have a stalk so incorporated with the dura that from it they almost appear to originate. The author refers to seven hundred and fifty-one verified instances of cerebral tumour. Eighty-five of these were meningiomata. Without claiming originality for the view that these growths spring from cell clusters in the arachnoid (Pacchionian bodies) he brings evidence to show that this is the case. It is of ætiological significance that the Pacchionian bodies serve as filters between the subarachnoid spaces and the dural sinuses. They also enlarge with increasing years and under the stimulus of injury and they show neoplastic tendencies obscurely related to the genesis of tumours in general. As might be expected, meningiomata are most frequent where arachnoid villi abound. They tend to provoke cranial hyperostosis. Despite their enucleability when diagnosed, the operation is often hazardous. One reason is that before the presence of the growth has been suspected it may have attained a large size and by venous stasis have increased the vascularity of scalp and bone. However, in the whole realm of medicine there is nothing more gratifying than perfect functional recovery subsequent to the successful removal of a meningioma.

Subacute Combined Degeneration of the Spinal Cord.

A. F. HURST AND J. R. BELL (*Brain*, Part II., 1922) attempt to show that both Addison's anæmia and the spinal disease sometimes associated therewith depend upon the same underlying pathological processes—oral sepsis, absence of free hydrochloric acid from the stomach contents throughout digestion and consequent intestinal infection and intoxication. They first show reasons for believing that the achlorhydria is an essential predisposing cause of the anæmia. For example, in sixty-four out of sixty-six fractional test meals carried out at Guy's and the London Hospitals on patients suffering from Addison's anæmia complete achlorhydria occurred throughout the period of digestion. Next they indicate the probability that many of the recorded instances of spinal degeneration, in which the blood picture was not characteristic of Addison's anæmia, were none the less associated with that condition. Then, after touching upon the frequency of digestive symptoms preceding subacute combined degeneration the authors bring forward eight personally investigated typical instances of this degeneration. In all of these free hydrochloric acid was completely absent throughout the period of digestion. They next allude to the frequence of oral sepsis and intestinal infection in Addison's anæmia. In pathogenesis, the essential point is that in the absence of hydrochloric acid an excess of undigested or incompletely digested proteins enters the intestines and leads to the production of toxins, one destructive for the blood, the other for nervous tissues. The treatment is obvious. Oral sepis should be corrected and large doses of hydrochloric acid should be given with each meal. Milk soured by the *Bacillus acidus lacticus* should also be taken for an indefinite period.

The Hospitalization of the Scottish Asylum System.

GEORGE M. ROBERTSON (*Journal of Mental Science*, October, 1922) writes that for more than a generation the dominating motive of the asylum authorities in Scotland has been to make the asylum an institution conducted on the same medical and nursing methods as those in general hospitals. First, the elimination of prison-like features had to be effected and as a beginning airing-courts and high investing walls were abolished. Exercise was given on walks round the extensive grounds. Then followed the system of non-restraint and the abolition of strait-jackets, gloves, the "padded room" and of confinement in single rooms either by day or by night. These mechanical safeguards were substituted by continuous and efficient nursing supervision. Finally, the open-door system was introduced and the number of locked doors reduced to a minimum. Secondly, in regard to the introduction of hospital features, the first advance was the establishment of the separate hospital block for all patients suffering from recoverable insanity and all those suffering from bodily illness. Following on this came courses of instruction and training for mental nurses. Another advance was the appointment of hospital nurses as matrons of the female divisions after they had received the required mental hospital training. Attention next turned to the question of the management of the male insane by female nurses. It was soon found that the hospital block, already referred to, could be staffed by women. Later it was noticed that women possessed more control than men over male patients who might be thought unsuited for their care. So that finally the system emerged of a complete female staff aided by males under certain necessary circumstances and headed by a matron. The effect is that the tone and whole atmosphere of the institution is different. It is at once more human, more sympathetic and more medical.

British Medical Association News.

ANNUAL MEETING.

TASMANIAN BRANCH.

THE ANNUAL MEETING OF THE TASMANIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held in the rooms of the Royal Society of Tasmania, Hobart, on February 3, 1923, the President, DR. G. H. HOGG, in the chair.

Election of Office-Bearers.

The following were elected office-bearers and members of the Council for the ensuing year:

President: DR. G. SPROTT.
President-Elect: DR. G. E. CLEMONS.
Vice-President: DR. G. H. HOGG.
Members of Council: DR. F. B. MARTIN, DR. T. C. BUTLER, DR. D. H. E. LINES, DR. R. G. SCOTT, DR. J. RAMSAY.
Honorary Treasurer: DR. E. A. ROGERS.
Honorary Secretary: DR. E. BRETTINGHAM-MOORE.

Annual Report.

The Annual Report of the Council was read, received and and adopted.

ANNUAL REPORT FOR 1922.

THE COUNCIL have to report that there are now 79 members, two having resigned, three having been transferred to other Branches, one having left the State; seven members of other Branches have come to Tasmania and one new member was elected.

There have been ten general meetings with an average attendance of over fourteen. There were fifteen Council meetings with an average of six.

The hospital question is once more to the fore and the finding of the Board of Inquiry is awaited with much interest. At the special meeting held in Launcestion in June, the Council was asked to try to arrange with the Government and the Hospital Boards to permit of the re-establishment of honorary service. Your Council has had several interviews with the Chief Secretary on this matter and a meeting was arranged by the Chief Secretary between three members of the Board of the Hobart General Hospital and three members of the Council, when it was found—much to the surprise of the Chief Secretary and ourselves—that the present contracts absolutely precluded any possibility of working in the hospital during their continuance.

There was a number of papers read and clinical matter brought before the meetings which were consequently very interesting, but on the whole poorly attended. Members are asked to give more generous support by their presence to those who prepare material.

Financial Statement.

DR. E. A. ROGERS, the Honorary Treasurer, presented the financial statement, as printed below. The statement was received.

President's Address.

THE PRESIDENT, DR. G. H. HOGG, then read his address (see page 337). At the termination of the address DR. HOGG introduced DR. G. SPROTT to the chair.

MEDICO-POLITICAL.

A MEETING of members of the Victorian Branch of the British Medical Association resident in the district was held at Hamilton, Victoria, on February 9, 1923, to inaugurate the "South-Western Division" of the Branch, the President, DR. H. I. HOLMES, in the chair.

DR. L. S. LATHAM, the President of the Victorian Branch, addressed the meeting. He spoke on the aims and objects of the British Medical Association, on the functions of local groups and their relation to the Branch Council. He referred to the necessity for country members to keep the Council posted as to their needs and as to the conditions peculiar to each district. He dealt with the work of the Medical Agency and explained the object and effect of the incorporation of the Branches. In connexion with the latter he traversed briefly the history of the negotiations between the overseas Branches and the parent body in England. He asked for expressions of opinion from members of the "Division" in regard to the establishment of a bush nursing service.

DR. G. E. COLE was appointed Honorary Secretary of the "Division" in the place of Dr. I. Connor, who had resigned.

It was resolved to hold four meetings in each year, two at Hamilton and two at Warrnambool. It was further resolved that one meeting at each place should be a full meeting of the "Division" and the other should be a small meeting for members residing in the immediate

TASMANIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

RECEIPTS:

May 15, 1922, to February 8, 1923.

	£	s.	d.
To Balance in Hobart Savings Bank at May 15, 1922	139	10	6
„ Members' Subscriptions	266	15	0
„ Bank Interest	2	17	2
	£409	2	8

EXPENDITURE:

May 15, 1922, to February 8, 1923.

	£	s.	d.
By Remittance to London	108	6	1
„ Payment for the Supply of THE MEDICAL JOURNAL OF AUSTRALIA	68	0	0
„ Rent	10	0	0
„ Expenses, Federal Committee	14	10	9
„ Caretaker's Wages	3	0	0
„ Petty Cash	7	0	0
„ Auditor's Fees	2	2	0
„ Exchange	0	9	3
„ Balance in Hobart Savings Bank	195	14	7
	£409	2	8

I HAVE to report that I have audited the Books and Vouchers of the British Medical Association (Tasmanian Branch) and the above is a correct statement of Receipts and Payments for the period 15th May, 1922, to 8th February, 1923, as shown by the books of the Association.

C. A. BENNETTO, A.C.I.A., Auditor.

E. A. ROGERS,
Honorary Treasurer.

vicinity. It is intended to secure the presence of lecturers from Melbourne for the principal meetings and to collect cases suitable for demonstration.

The meeting further decided to approach the Council of the Victorian Branch with a view to securing circulating library facilities for members of country divisions. Members expressed the opinion that the extension of library facilities to country members would be a material addition to the benefits conferred on them by membership of the British Medical Association.

The members had the privilege of listening to an address on fractures by Dr. Fay Maclure, O.B.E..

NOTICES.

THE COUNCIL OF THE VICTORIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION has arranged the following provisional programme of the Branch meetings. The Scientific Committee reserves to itself the right to modify the arrangements, but it is hoped that no changes will be necessary.

April 11, 1923.

CLINICAL MEETING at the Children's Hospital, Carlton, at 8.15 p.m..

May 2, 1923.

At the Walter and Eliza Hall Institute of Research in Pathology and Medicine, Melbourne Hospital, at 8.15 p.m..

DR. KEITH FAIRLEY: "Leucocytes in Health and Disease."

NOMINATIONS AND ELECTIONS.

THE undermentioned have been elected members of the South Australian Branch of the British Medical Association:

ADAMS, DOROTHY SORBY, M.B., B.S., 1923 (Univ. Adelaide), 17, Robsart Street, Parkside.

HOBBS, ALAN FRANK, M.B., B.S., 1923 (Univ. Adelaide), Felixstowe Road, Payneham.

HOOPMAN, FRIEDRICH WILHELM, M.B., B.S., 1923 (Univ. Adelaide), 33, Queen Street, Norwood.

THE undermentioned have been nominated for election as members of the New South Wales Branch of the British Medical Association:

HARDY, RUTH, M.B., CH.M., 1922 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.

MAGHL, DAVID WILSON, M.B., CH.M., 1922 (Univ. Sydney), Sydney Hospital.

Congress Notes.

AUSTRALASIAN MEDICAL CONGRESS (BRITISH MEDICAL ASSOCIATION).

ACCOMMODATION FOR MEMBERS.

THE EXECUTIVE COMMITTEE OF THE AUSTRALASIAN MEDICAL CONGRESS (British Medical Association) recently issued a circular containing information concerning the first session of Congress to be held in Melbourne from November 12 to November 17, 1923. For the convenience and comfort of members we publish below a list of hotels in Melbourne and its environs with information concerning the tariff and accommodation. Members are advised that all the available rooms at the Oriental and Menzies Hotels have been engaged for the period of Congress. Members are advised to apply to the managers of the hotels selected at an early date, in order that disappointment may be avoided.

House.	Address.	Persons to Accommodate.	Rooms.		Tariff.	
			Double	Single.	Per Day.	Per Wk.
Scott's	Collins Street West, Melbourne	26	6	14	23s.	
Windsor (formerly Grand)	Spring Street, Melbourne	200	—	—	20s.	
Carlyon's	Spencer Street, Melbourne	30	—	—	Single Room, 5s.; Double Rooms, 10s.; Meals as taken	
Union Club	Collins Street West, Melbourne	6	—	—	20s.	
New Treasury	Spring Street, Melbourne	20	—	—	16s.	£4 4s.
Port Phillip	Flinders Street, Melbourne	30	—	—	15s.	
Victoria Coffee Palace	Collins Street East, Melbourne	200	—	—	Single Rooms, 3s. 6d. and 4s. 6d.; Double Rooms, 6s., and 10s.; Meals as taken	
Federal Palace	Collins Street West, Melbourne	200	—	—	11s. 6d. to 20s.	
Cathedral Hotel	Swanston Street, Melbourne	12	—	—	10s. 6d.	£3 3s.
Esplanade (Carlyon's)	Esplanade, St. Kilda	6	—	—	20s.	
George	Fitzroy Street, St. Kilda	40	20	—	15s.	
Ritz	Fitzroy Street, St. Kilda	30	—	—	20s.	
Prince of Wales	Fitzroy Street, St. Kilda	30	15	—	13s. 6d.	
Beaconsfield	Beaconsfield Parade, St. Kilda	25	—	—	15s.	
Inverleigh	12, Acland Street, St. Kilda	11	4	3		
Victoria Hotel	South Melbourne	30	—	—		£5 5s. to £6 6s.
Bridge Hotel	Mordialloc (15 miles by electric train)	14	4	6	12s.	£3 3s.
Hampton Hotel	Hampton (10 miles by electric train)	12	—	—	15s.	£3 3s.
Royal Terminus (Kemp)	Brighton Beach (9 miles)	10–12	—	—		£5 5s.
Beaumaris Hotel	Beaumaris (11 miles by motor to rail in November)	20	—	—	15s.	£4 4s.
Mentone Hotel	Mentone (13 miles by electric train)	20–50	—	—	15s.	£4 4s.

ENTERTAINMENTS.

The following is a provisional programme of the entertainments that are being arranged for Congress. It is announced that special committees are busy planning ex-

cursions for the ladies accompanying members and for their entertainment during the sessions of Congress.

Monday, November 12, 1923.

Morning: Arrival of members.

Afternoon: Reception at a Garden Party by the President at the University. Opening of the New Anatomy School in the presence of the Governor and Lady Stradbroke.

Evening (8.30): Inaugural meeting; the Governor-General and Sir William MacEwen will be present.

Tuesday, November 13, 1923.

Evening: Dinner of Returned Medical Officers.

Wednesday, November 14, 1923.

Afternoon: Governor-General's Garden Party.

Evening: Popular Lecture by (?) Dr. C. J. Martin.

Thursday, November 15, 1923.

Evening: Ladies' Reception at the State Government House.

Friday, November 16, 1923.

Afternoon (5.0): Women's Medical Association Entertainment.

Evening: Dinner given by the Governor-General to Chief Officers. Ball given by the Victorian Branch of the British Medical Association.

Saturday, November 17, 1923.

Morning (9.30 to 11.30): Meeting.

Afternoon: Expedition to the country and lunch arranged by the Melbourne Medical Association.

Monday, November 19, 1923.

Expedition to Yallourn (Brown Coal Area) under the direction of Sir John Monash.

Medical Societies.

MELBOURNE PÆDIATRIC SOCIETY.

THE SEVENTEENTH ANNUAL MEETING OF THE MELBOURNE PÆDIATRIC SOCIETY was held at the Hotel Windsor on Wednesday evening, March 14, 1923, the PRESIDENT, DR. R. L. FORSYTH, in the chair.

Annual Report.

The Annual Report was presented by the Honorary Secretary, Dr. H. Douglas Stephens. In the report a review was made of the nine meetings, clinical, academic and pathological, which had been held throughout the year and the indebtedness of the Society was expressed to those gentlemen who had contributed notably to the success of the meetings.

Special mention was made of the lecture by Professor Porteus, of the Goddard Institute, Vinelands, New Jersey, which dealt with the classification and general education of mentally defective children in the United States. Reference was also made to the clinical meeting of November, 1922, to which the members of the Victorian Branch of the British Medical Association and the post-graduate class were invited. The highly successful character of this meeting was attributed in large measure to the organizing work of Dr. J. W. Grieve.

The Report was adopted on the motion of Dr. A. E. Rowden White, seconded by Dr. Alan McCutcheon.

Financial Statement.

The consideration of the balance-sheet was deferred until the next ordinary meeting of the Society.

Election of Office-Bearers.

The following members were elected as office-bearers for the ensuing year:

President: DR. R. M. DOWNES.

Honorary Treasurer: DR. F. HOBILL COLE.

Honorary Auditor: DR. W. A. WOOD.

Honorary Secretary: DR. H. DOUGLAS STEPHENS.

Honorary Assistant Secretary: DR. J. W. GRIEVE.

Members of Committee: DR. H. HUME TURNBULL, DR. A. E. ROWDEN WHITE, DR. STEWART FERGUSON.

Annual Subscription.

On the motion of Dr. William Dismore Upjohn, seconded by Dr. H. Douglas Stephens, it was decided that the annual subscription be fixed at one guinea, with a provision of a half-guinea subscription for members who were graduates of less than five years' standing.

Votes of Thanks.

Votes of thanks to the Committee of Management of the Children's Hospital and to the Matron and nursing staff concluded the business.

Annual Dinner.

The annual dinner was subsequently held at the Hotel Windsor.

The guests of honour were Dr. A. Jeffreys Wood and Mr. J. Love. Dr. Wood recently retired after thirty years' service on the staff of the Children's Hospital. Mr. Love, after twenty years' association with the administrative work of the hospital in the course of which he rose from office-boy to secretary and superintendent, has been appointed Inspector of Charities under the new *Hospital and Charities Act*.

Medical Matters in Parliament.

THE HOSPITALS AND CHARITIES BILL.

(*Continued from page* 335.)

MR. SNOWBALL discussed Clause 69 about which there had been much discussion in committee. This clause provides that:

> Any institution, society, or association incorporated under this Part or any corresponding previous enactment or capable of incorporation under this Part may, with the consent of the Governor-in-Council (after inquiry and report by the Board) sell or exchange land belonging to it (but not any land granted, reserved, or set apart by the Crown for the purposes of the institution) freed and discharged from any trusts affecting the same, although such sale or exchange is not expressly authorized or permitted by the trust on which the land is held.

He moved:

> That after the word "institution" (line 9) the words "and not without the sanction of the Supreme Court, where by the terms on which the lands were acquired by the institution it appears to have been intended that they should not be disposed of" be inserted.

MR. MCPHERSON said that he had had the matter looked into by the Crown Law Department and that he had been informed that if this amendment were carried the clause would be rendered nugatory. He read the following memorandum from the department:

> If land is held upon trust for a charity, then the trustees cannot sell it unless there is in the instrument creating the trust a power to sell. If there is no power to sell it is necessary, in order

that the land may be sold, to apply to the Court to authorize the sale. These proceedings usually involve the settlement of a new scheme which includes authority to sell the land, and provision as to investment and application of the proceeds. They are therefore expensive.

The object of Clause 69 is to substitute the approval of the Governor-in-Council (after inquiry and report by the Board) for that of the Court in the case of the charities therein mentioned.

MR. MCPHERSON said that the Crown Law authorities had told him that it would not be possible to sell land which a testator had said was not to be sold. The clause only dealt with instances in which the testator had left the matter in doubt and in this case the matter could be settled with far less expense by the Board than by the court.

MR. J. W. BILLSON said that the whole question reverted to the meaning of the words "or permitted."

The amendment was lost.

On the motion of MR. SNOWBALL, the words "or permitted" were omitted.

MR. WEBBER referred to Clause 75 in regard to the liability of a patient to contribute to the cost of his maintenance or relief. He moved an amendmet, the effect of which was to exempt any individual in possession of property not exceeding £850 in value.

MR. MCPHERSON said that he had discussed the matter with the law authorities and he intended to move an amendment to Clause 78 to deal with the matter.

The amendment was not carried.

MR. MCPHERSON then dealt with Clause 78 as follows:

All orders made in pursuance of this Part may be enforced and payments of the amounts thereunder may be recovered in any Court of Petty Sessions.

He moved:

That the following be inserted at the end of the clause:—"but no such order shall be made in pursuance of this Part in any case in which the Court is satisfied that (having regard to the means, estate, or property of the patient in respect of whom the order is sought) such an order would in the circumstances be unreasonable."

The amendment was adopted.

MR. MCPHERSON thanked the members for the kindness and patience they had shown in dealing with the Bill.

On November 1, 1922, the Bill was received by the Legislative Council from the Legislative Assembly and read a first time on the motion of the HONOURABLE A. ROBINSON.

On November 14, 1922, the HONOURABLE A. ROBINSON moved the second reading of the Bill.

On November 21, 1922, the Bill was read a second time and committed.

Clause 4 was amended in regard to the definition of the term "contributor" by the inclusion of a person who pursuant to the by-law of the institution was a life governor thereof at the commencement of the Act. Sub-Clause (*b*) defining a contributor as follows:

A person who at any time has on his own behalf contributed to the institution at least Twenty pounds in one donation.

was amended by the addition of the words:

"Or such less sum as entitles him pursuant to the by-laws of the institution to be elected a life member or life governor thereof."

The definition of a contributor as:

A person nominated as a contributor by any corporation company or firm which at any time has contributed at least Twenty pounds to the institution in one donation out of the moneys of the corporation or firm.

was amplified by the addition of the words:

Or such less sum as would pursuant to the by-laws of the institution entitle any person contributing the same to be elected a life member or life governor thereof.

Clause 5 (Institutions exempted from the operation of the Act) was amended by the addition of the institutions conducted by the Old Colonists' Association of Victoria and of the Freemason's Home of Victoria.

On the motion of the HONOURABLE DR. HARRIS, an amendment was adopted in regard to Clause 11 (appointment of members of the Board). This amendment provided that if at any time any body of persons entitled to nominate a person as member of the Board did not make such nomination within two months of being requested to do so by the Minister, the Governor-in-Council should make the appointment without nomination.

In regard to Clause 17 (Minutes of the proceedings of the Board) an amendment was adopted, deleting the necessity of sending copies of the decisions of the Board to the Minister.

In regard to Clause 21, an amendment was adopted on the motion of the HONOURABLE DR. HARRIS providing that the Inspector of Charities should be *ex officio* secretary to the Board to appoint local advisory committees.

Much discussion occurred over Clause 41 dealing with the establishment of intermediate hospitals and the power to set apart beds in country hospitals for patients who would pay similar charges to those made in an intermediate hospital.

The HONOURABLE H. H. SMITH said that the country hospitals would simply take in patients who could pay and that the pauper patients would be sent down to the metropolis.

The HONOURABLE DR. HARRIS said that the medical profession in the country wanted the provision in regard to paying patients in country hospitals cut out. The time had not yet come and the population in the country was not large enough to warrant the establishment of intermediate hospitals in the country. The establishment of intermediate hospitals in small country towns would have the effect of depleting the private practice of doctors in such towns and would mean that fewer medical men would settle in them.

The HONOURABLE J. P. JONES was afraid that the establishment of intermediate hospitals would mean that all the persons who were able to pay at all, would be provided for in intermediate hospitals and that the general hospitals to which the public subscribed, would become pauper institutions.

The HONOURABLE A. ROBINSON defended the scheme for the establishment of intermediate hospitals; he did not agree, however, with the proposal to treat particular wards of country hospitals as if they were intermediate hospitals.

Votes were taken on each of the three sub-clauses *seriatim* and in this way the whole clause was deleted.

Clause 42 requiring that the Minister, before any inclusive charges were fixed, should consider the representations of any recognized body of legally qualified medical practitioners or of any organizations of nurses or hospital attendants was deleted.

Clause 47 was deleted (approval of the Board to be obtained in certain cases to the erection *et cetera* of buildings).

Clause 48 dealing with the restrictions on certain means of raising money without the consent of the Board was amended by the addition of the proviso:

That it shall not be necessary to obtain the previous consent of the Board to the publishing in a newspaper of any general public appeal for funds to provide gifts or entertainments for patients in any institution or other appeals of a like nature so published.

Sub-Clause 3 of this clause provided that no person should, without the approval of the Board, appeal for

subscriptions outside a particular area. This was modified by the omission of the words "without the approval of the Board."

Clause 66 relating to the service of notices was amended in such a way that seven days' notice should be given before any meeting or election.

Clause 87 dealing with the power of the Governor-in-Council to make regulations was amended by the omission of the sub-clauses dealing with intermediate hospitals and local committees.

On the motion of the HONOURABLE H. I. COHEN, the following new clause was adopted:

> No person other than a registered pharmaceutical chemist or where the services of such a chemist are not available a duly qualified medical practitioner shall compound any medicine or drug for use in any hospital. Any person who acts in contravention of this section shall be punishable as for an offence under section one hundred and three of the *Medical Act*, 1915.

The Bill was reported with further amendments and the report was adopted.

The Bill was read a third time.

The Bill was subsequently considered by the Legislative Assembly and some amendments were approved, while others were referred back to the Legislative Council. The latter body, however, insisted on all its amendments and the Assembly finally agreed not to insist on disagreeing with the amendments made by the Council.

Obituary.

ALFRED OSWALD HOWSE.

THE death of Dr. Alfred Oswald Howse which was reported recently in the columns of this journal, has occasioned much regret not only among his brother practitioners in Sydney and those with whom he had seen active service in the great war, but also among a wide circle of friends.

Alfred Oswald Howse was the son of the late Dr. Alfred Howse, who practised in Somerset, England. He was born in Somerset in 1870 and was educated in London. Recognizing at an early age what his life's work was to be, he became a medical student at the London Hospital in 1888. In point of fact, he was one of four brothers who began their medical careers at that hospital within a space of ten years. He was a successful student and gained the diplomas of membership of the Royal College of Surgeons of England and licentiate of the Royal College of Physicians of London in 1893.

In 1894 Alfred Oswald Howse came to Australia and started practice at Wingham on the Manning River. One of his brothers at this time was practising at Taree. The limitations of a small place did not give sufficient scope to his powers and he soon transferred his activities to Sydney, where he started practice in College Street. Here he built up a successful and extraordinarily extensive practice. He was a good clinician. This combined with his steadfastness of purpose and his cheerfulness of disposition made failure impossible. He was in a special sense a friend of the poor. Quiet and unassuming and actuated in this direction by sheer love of his fellowman, his advice and help were ever at the disposal of those who needed it. In this way he wove for himself a web of affectionate regard that will cling to his memory.

Alfred Oswald Howse was amongst those who were first to answer their country's call in 1914 at the outbreak of war. His patriotic soul was filled with the desire to serve. In November, 1914, he was appointed Captain in the Australian Army Medical Corps. His example was such that his son enlisted at the age of eighteen, saw service in France and was wounded at Villers Brettoneaux. Alfred Oswald Howse became medical officer of the First Field Artillery Brigade. He saw service at Cape Helles in Gallipoli and later on in France. In June, 1916, he was promoted to the rank of temporary Major. In the field his bearing was one of cheerful optimism. Both officers and men thought well of him. For the latter he was always solicitous. Anything that could be done for their welfare or comfort was his personal care. The name of Alfred Oswald Howse appeared in Sir Douglas Haig's dispatch of April 8, 1917, as deserving of special mention. It is an open secret that he was recommended on more than one occasion by his commanding officer for some form of recognition. On his return from active service late in 1917, he practised in Macquarie Street.

Of Alfred Oswald Howse it may be said that geniality of disposition was his most striking characteristic. To be in his company was to be cheerful. His chief recreation was golf. As a member of the Kensington Golf Club and of the Australian Club he enjoyed the friendship of a large number of people.

Alfred Oswald Howse was the brother of Sir Neville Howse, V.C., M.P., and of Dr. C. B. Howse, of Orange. He is survived by a widow, two sons and two daughters, to whom much sympathy is extended.

Dr. Archie J. Aspinall writes:

The death of Oswald Howse came as a great blow. But a few days before his death he seemed to be quite well and his genial self, laughing and talking about coming events. As soon as war broke out his only thought was to proceed on active service and he greatly envied those who were called up from the Australian Army Medical Corps and were able to enlist at once. He was regimental medical officer to the First Brigade of Artillery and both in camp at Mena, Egypt, and later at Cape Helles in Gallipoli, he was devoted to his work and equally popular with both officers and men. At the front he showed conspicuous bravery and was recommended for distinction by his commanding officer. In civil practice he was beloved by his patients, particularly the poor to whom he was especially good. The profession is the poorer by the death of Oswald Howse who shed brightness wherever he went.

COLIN CAMPBELL.

BY the death of Dr. Colin Campbell, of Yea, Victoria, which occurred on February 22, 1923, a sound practitioner of the younger section of the medical profession in Victoria was removed from a sphere of work in which he was happily situated.

Colin Campbell was born in 1890 in Moonee Ponds, Victoria, and was the younger son of the late James Campbell, a well-known medical practitioner. He was educated at Scotch College, Melbourne, where he was conspicuously successful in his studies and noted for his genial good fellowship. From Scotch College he proceeded to the Melbourne University in 1907, entering upon the medical course which he completed in November, 1911.

After serving a short term as resident medical officer at the Alfred Hospital, he secured the appointment of resident surgeon at the public hospital in Warrnambool. He then entered private practice in the capacity of assistant to Dr. Skeeman, of Portland.

In 1914 Colin Campbell commenced practice in Yea, where he soon became firmly established by reason of the combination of professional knowledge and personal popularity of which he was the possessor.

He carried out many surgical operations in the course of his practice and gained a considerable reputation as an adept obstetrician.

He was passionately fond of music in which art he attained a large measure of knowledge and proficiency.

A lover of animals he found a great source of interest and pleasure in the exercise of an unusual faculty for gaining their confidence.

Colin Campbell was unmarried. His untimely death at the age of 33 years was caused by septic broncho-pneumonia sequent on quinsy. He will be greatly missed in Yea where he had already become popular and highly respected.

ALEXANDER RONALD MACMILLAN.

IT is with regret that we have to announce the death of Alexander Ronald Macmillan, a widely respected and skilful practitioner.

Alexander Ronald Macmillan was born at Beechworth, Victoria, in 1863. He was educated at Hamilton College. At the age of sixteen he left Australia and travelled to Scotland in order to study medicine at the University of Edinburgh. He spent five years in the famous Scottish medical school and in 1885 he obtained the degrees of bachelor of medicine and master of surgery. After graduation he entered practice in South Wales, where he stayed for about a year. Returning to Australia he settled in Casterton, Victoria, where he gathered many patients around him and laid the foundation for a good practice. In 1888 he transferred his *lares et penates* to Naracoorte in South Australia. In due course he worked up a large practice as a result of hard work, genuine ability and a kindly personality. His patients esteemed and trusted him implicitly. During the thirty-five years of his residence at Naracoorte, he gained all that a real family doctor desires, warm affection and confidence of all with whom he had dealings, success in healing and the consciousness of having performed his life's task well. On March 11, 1923, he was taken ill suddenly while attending a patient and died within a short time. The cause of death is given as heart failure. Much sympathy is felt with his widow and his two daughters and two sons.

ALEXANDER CORRY.

IT is with regret that we have to announce the death of Dr. Alexander Corry, of Egerton, Victoria, which took place on March 13, 1923.

Correspondence.

CYANOSIS IN AN HYSTERICAL PATIENT.

SIR: In the Journal of March 10, 1923, Dr. Rawson, of the Melbourne Hospital, reported a case of "Artificial Cyanosis in an Hysterical Patient."

About six months ago the same patient came under my observation. She had just taken a room in a lodging house when she had an attack very similar to those described by Dr. Rawson. When I arrived I found her moaning in apparent pain and on being interrogated she complained of pain in the precordial region and in the left upper arm. Her breathing was more or less laboured and her face and lips were apparently cyanosed. She was clutching her left biceps with her right hand.

I gave her a capsule of amyl nitrite to inhale and morphia (gr. ¼) hypodermically with very little effect. As the pain in the left arm was apparently agonizing, I followed this up, in spite of her protests, by chloroforming her. During this procedure her cyanosis became very marked. When she came out of the anæsthetic she was dazed, but apparently cured.

Later in the day she had another attack and I arranged for an ambulance to arrive at the same time as myself. The patient, although moaning and seemingly in great distress, refused to go to a hospital and when we attempted forcibly to place her on the stretcher, resisted violently, threatening to call down on my head all the penalties of the law. I therefore thought it better to leave her where she was and retire from the case. She prevented this as I was leaving the room by threatening to die and really looked so like it that I had to treat her again as before. This time it took me two hours before she appeared well enough to leave.

Early next morning her landlady reported that Miss F. was locked in her room and from the moans and thuds she heard she concluded that the patient was dying.

This time I arrived accompanied by a policeman. A short parley convinced the dying woman that she had exhausted everybody's sympathy and she packed up her belongings and boarded a tram quite cured.

Although I continually had my hands on her face while giving her chloroform, I did not notice any colouring material and the conclusion I came to at the time was that the cyanosis was produced by holding the breath. When relaxed by the anæsthetic her colour became normal.

Yours, etc.,

T. J. K. WHITTAM, M.B., B.S. (MELB.).

30, Howe Crescent,
South Melbourne, Victoria.
March 13, 1923.

AN APPEAL.

THE following letter has been received from Miss Ethell Cooper, the Head of the Publicity Department of the Friends' Relief Mission in Vienna. Miss Cooper is well known in medical and other circles and readers may rest assured that she has satisfied herself concerning the genuineness of the case.

> The daughter of the great Viennese surgeon, Professor Theodor Billroth, whose name will certainly be known to you, is living now in Vienna in very great need. Her father on his death left her the sum of two hundred thousand *Kronen*, then equivalent to £13,000. Through the utter collapse of the Austrian currency that sum is now worth only 12s. 4d..
>
> After a short married life this lady lost her husband, Dr. Conrat, the engineer who constructed the Mont Blanc railway. Frau Conrat-Billroth has three children, one of whom, a boy of eleven years, is an invalid, and has no other source of income than through letting rooms in the little house which is her only remaining property. Except for this she and her children are entirely dependent on private charity.
>
> The Friends' Relief Mission does not feel that this is a case which can adequately be met either by giving tickets for a free dinner, a little clothing or by the other means which are at the disposal of the Mission.
>
> Frau Conrat-Billroth will not consent to any appeal for assistance through the public press, but the Friends' Relief Mission allows me in its name to ask certain members of the medical and engineering professions if they will contribute in any way to help the daughter and widow of men who have done very much in the service of humanity.

The Editor will be pleased to forward any contributions that may be sent in aid of the daughter of the great surgeon and pathologist to the Friends' Relief Mission in Vienna.

Proceedings of the Australian Medical Boards.

NEW SOUTH WALES.

THE undermentioned have been registered under the provisions of the *Medical Act, 1912 and 1915*, as duly qualified medical practitioners:

ALPERS, PHILIP JACOB, M.B., Bac. Surg., 1922 (Univ. Melbourne), The Rock, New South Wales.

BURTON, RUSSELL NELHAM, L.R.C.P. (Edin.), 1917; L.R.C.S. (Edin.), 1917; L.R.F.P.S. (Glasg.), 1917), Ingleburn.

ELWORTHY, HENRY HERBERT, Lic. R. Coll. Phys. (Lond.), 1904; Mem. R. Coll. Surg. (Eng.), 1904, Glenferrie, Carabella Street, Kirribilli.

For Additional Registration:

Huxtable, Charles Reginald Ralston, F.R.C.S. (Edin.), 1922.

Gentile, Salvatore Umberto, Ch.M., 1922 (Univ. Sydney), Carlotta Road, Double Bay.

Books Received.

WAR BLINDNESS AT ST. DUNSTAN'S, by Sir Arnold Lawson, K.B.E., M.D., F.R.C.S., L.R.C.P.; 1922. London: Henry Frowde and Hodder & Stoughton; Melbourne: Oxford University Press (E. R. Bartholomew); Demy 8vo., pp. vii. + 148. Price: 7s. 6d. net.

Medical Appointments.

At the meeting of the Board of Management of the Alfred Hospital, Prahran, Victoria, held on March 21, 1923, the following appointments were made:

Dr. M. F. H. Gamble (B.M.A.) as Honorary Psychiatrist; Dr. Florence M. Hughes as Honorary Anæsthetist; Dr. E. L. Gault (B.M.A.) as Honorary Opthalmic Surgeon (appointment extended for twelve months); Dr. G. A. Birnie (B.M.A.), Dr. J. E. Gillespie (B.M.A.), Dr. A. W. Le Souef (B.M.A.), Dr. W. S. Newton (B.M.A.), Dr. F. L. Trinca (B.M.A.) and Dr. J. W. Young (B.M.A.), as Clinical Assistants to Out-Patient Physicians; Dr. Dougan Bird (B.M.A.), Dr. H. C. Colville (B.M.A.), Dr. J. L. Diggle (B.M.A.), Dr. Rupert M. Downes (B.M.A.), Dr. Carlton A. Ellis (B.M.A.), Dr. Robert Fowler (B.M.A.), Dr. Joseph Love (B.M.A.), Dr. A. J. Trinca (B.M.A.) and Dr. H. C. Trumble (B.M.A.), as Clinical Assistants to Out-Patient Surgeons; Dr. C. N. Finn (B.M.A.) and Dr. J. R. Anderson (B.M.A.) as Clinical Assistants to Specialist in Diseases of the Eye; Dr. Barry Thomson, as Assistant to Specialist in Diseases of Ear, Nose and Throat; Dr. E. W. Gutteridge (B.M.A.) and Dr. Clive Stephen, as Clinical Assistants to Specialist in Diseases of Ear, Nose and Throat; Dr. C. E. Dennis (B.M.A), as Assistant to Honorary Radiologist; Dr. R. G. Stott (B.M.A.) and Dr. Ivan Blaubaum (B.M.A.), as Clinical Assistants to Children's Specialists; Dr. S. W. Shields (B.M.A.), as Clinical Assistant to Skin Specialist.

Dr. J. P. Major (B.M.A.) was appointed Acting In-Patient Physician during the absence on leave of Dr. J. F. Mackeddie (B.M.A.); Dr. W. S. Newton (B.M.A.) was appointed Out-Patient Physician in the absence of Dr. Major and Dr. E. P. Oldham (B.M.A.) was appointed *locum tenens* for Dr. Newton.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, *locum tenentes* sought, etc., see "Advertiser," page xviii..

Baby Clinics Committee, Sydney: Honorary Medical Officer.

Broken Hill District Hospital: Surgeon Superintendent.

Department of Public Instruction, Victoria: Medical Officer.

Melbourne Hospital: Resident Radiologist; Consulting Alienist; Psychiatrist; Medical Clinical Assistant; Surgeon Clinical Assistants (2); Clinical Assistant, Ear, Nose and Throat Department; Clinical Assistant to Dermatologist; Honorary Dentists (2).

Newcastle Hospital: Pathologist.

Royal Alexandra Hospital for Children: Honorary Assistant Ear, Nose and Throat Surgeon; Registrar; Honorary Assistant Pathologist.

Sydney Hospital: Honorary Physicians (2); Honorary Medical Staff.

Medical Appointments: Important Notice.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429, Strand, London, W.C.

BRANCH.	APPOINTMENTS.
New South Wales: Honorary Secretary, 30 - 34, Elizabeth Street, Sydney	Australian Natives' Association Ashfield and District Friendly Societies' Dispensary Balmain United Friendly Societies' Dispensary Friendly Society Lodges at Casino Leichhardt and Petersham Dispensary Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney Marrickville United Friendly Societies' Dispensary North Sydney United Friendly Societies People's Prudential Benefit Society Phœnix Mutual Provident Society
Victoria: Honorary Secretary, Medical Society Hall, East Melbourne	All Institutes or Medical Dispensaries Australian Prudential Association Proprietary, Limited Manchester Unity Independent Order of Oddfellows Mutual National Provident Club National Provident Association
Queensland: Honorary Secretary, B.M.A. Building, Adelaide Street, Brisbane	Brisbane United Friendly Society Institute Stannary Hills Hospital
South Australia: Honorary Secretary, 12, North Terrace, Adelaide	Contract Practice Appointments at Renmark Contract Practice Appointments in South Australia
Western Australia: Honorary Secretary, Saint George's Terrace, Perth	All Contract Practice Appointments in Western Australia
New Zealand (Wellington Division): Honorary Secretary, Wellington	Friendly Society Lodges, Wellington, New Zealand

Diary for the Month.

Apr. 6.—Queensland Branch, B.M.A.: Branch.
Apr. 10.—New South Wales Branch, B.M.A.: Ethics Committee.
Apr. 11.—Victorian Branch, B.M.A.: Branch.
Apr. 11.—Western Australian Branch, B.M.A.: Council.
Apr. 11.—Melbourne Pædiatric Society.
Apr. 12.—Victorian Branch, B.M.A.: Council.
Apr. 13.—New South Wales Branch, B.M.A.: Clinical Meeting.
Apr. 13.—Queensland Branch, B.M.A.: Council.
Apr. 13.—South Australian Branch, B.M.A.: Council.
Apr. 17.—New South Wales Branch, B.M.A.: Executive and Finance Committee.
Apr. 18.—Western Australian Branch, B.M.A.: Branch.
Apr. 20.—Eastern Suburbs Medical Association, New South Wales.
Apr. 20.—New South Wales Branch, B.M.A.: Section of Hygiene and Preventive Medicine.
Apr. 21.—Western Suburbs Medical Association, New South Wales: Annual Meeting.
Apr. 24.—New South Wales Branch, B.M.A.: Medical Politics Committee; Organization and Science Committee.
Apr. 25.—Victorian Branch, B.M.A.: Council.

Editorial Notices.

Manuscripts forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to The Medical Journal of Australia alone, unless the contrary be stated.

All communications should be addressed to "The Editor," The Medical Journal of Australia, B.M.A. Building, 30-34, Elizabeth Street, Sydney. (Telephone: B. 4635.)

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